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ORIGINAL ARTICLES.

TWO CASES ILLUSTRATING THE COMBINATION OF ORGANIC WITH HYSTERICAL DISEASE OF THE NERVOUS SYSTEM.

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The association of hysteria, or rather hysterical symptoms, with organic disease of the nervous system is always interesting, partly from the point of view of differential diagnosis and partly on account of the unusual opportunity such cases present for the study of the origin and evolution of symptoms of both kinds in the same individual. The two cases here described are somewhat typical of this condition and show well how difficult the diagnostic problem may become. The first case illustrates the combination of a hemiplegia resulting from an apoplexy and hysteria in a woman 36 years of age; the second illustrates the combination of hysteria and an infectious multiple neuritis. The clinical history of these cases will be given briefly, chiefly with the idea of accentuating the features incident to the occurrence of the two conditions together in the same individual.

Case 1. Mrs. V., age 36, mother of three children, has always been looked upon as a nervous individual. She has had numerous hysterical attacks during the past few years. There is nothing in her past history, other than this that throws any light on the present attack. Her family history shows nothing of importance. For four or five years previous to the present illness she had taken care of a sister who had suffered from an apoplectic attack with a resulting hemiplegia. When her sister died, Mrs. V. had acquired a considerable knowledge of the symptoms which commonly are met with in this condition. This intimate acquaintance with the clinical picture of apoplexy and the hemiplegic state forms an important psychical element in the subsequent history of her case. The patient was always in great fear that she herself would be a victim of the disease which had proven so fatal to her sister. This fear, together with the increased suggestibility incident to her chief trouble, formed the origin of several seizures of what she supposed were true apoplectic attacks. How closely they resembled the true condition is

not possible to say, as the family were not especially observant on this point. An important fact, however, is that the family learned to treat them as manifestations of an imaginary complaint, due to the knowledge of the disease she had acquired during the time her sister was under her care.

On the day before the attack here to be described a neighbor living in the flat below, died suddenly from some heart condition. Her death was distressing in many ways and the patient was continually with the excited family and took an active part in all the necessary preliminaries to the funeral. While the services were in progress Mrs. V. suddenly felt a constriction around the throat and experienced great difficulty in breathing. She became dizzy and attempted to leave the room. She had to be helped to bed and soon became stuporous. The family believed that this was merely a fresh manifestation of the old imaginary attacks and did not feel that it was necessary to call medical aid until late that night, when they grew alarmed at the increasing stupor. A physician called at that time gave a hypodermic of morphine and apparently considered that the patient was suffering from an attack of hysteria, basing this diagnosis, no doubt, largely upon the history of the case which was given him. The result of the morphine was a sudden development of rather wild delirium and a total disappearance of the state of stupor with which the attack had begun. I was asked to see the case the next day with a diagnosis of hysteria already made. The impression made by this diagnosis was hard to shake off and may have had something to do with complicating the diagnostic problem.

At the first examination it was evident that there was present incomplete hemiplegia of the right side, the facial was slightly involved and the hypoglossus intact. There was found likewise an incomplete motor aphasia chiefly limited to the naming of objects. A hemianesthesia on the right side and a total absence of all deep reflexes completed the picture. The pupils were very small and sluggish. The Babinski reflex was not to be found. The general physical examination showed a slightly hypertrophied apex beat with no dilatation and likewise a slight accentuation of the second pulmonic sound. There were no murmurs. The urine showed a trace of albumen with no microscopical elements of a pathological nature. There was no apparent arteriosclerosis. The patient was sent to the hospital for more careful observation. At this stage of the case a diagnosis of organic hemiplegia complicated with hysteria was thought to be justified and the subsequent course at the hospital bore out this contention. While there the reflexes in the lower extremities returned, at first very slightly and later exaggerated. A well marked Babinski developed on the right side and remained absent on the other. The aphasia gradually cleared up; but with such unusual

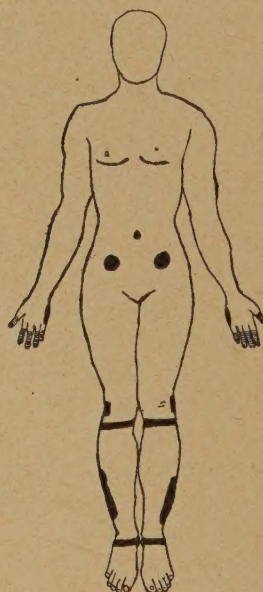
variations that it is extremely doubtful if this was of organic origin. There were days when the aphasic symptoms were almost complete, succeeded by days when no evidence of its existence could be determined. The anesthesia of one-half of the body disappeared to be succeeded by disseminated areas of anesthesia and hyperesthesia, which had no constant location and no constant duration. The patient has at the present time, numerous neurotic symptoms which can only be interpreted as hysterical in origin. Attacks of dyspnea, for example, during which the heart rate is little over the normal. Symptoms of regional paralysis, sometimes on the paralyzed side and sometimes on the normal side, which subside as suddenly as they appear. In each instance the diagnosis is not easily made on account of a possible organic origin of even the most bizarre group of symptoms.

This case is of interest chiefly for the reason that the hystero-organic nature of many of the symptoms is plainly discernible and for the reason, also that there was another element in the causation of the symptom complex which may be regarded as mental; and likewise for the reason that the masking of symptoms by two totally different processes in the same individual gave to them an unusual aspect which by no means was justified by the actual state of affairs.

Case 2. In this case the diagnostic problem was even more complicated and the final diagnosis was made only after studying the case for a week or more. A somewhat similar mental element was present in this case and was one of the causes which lead to a wrong conception of it in the beginning.

Mrs. Mac, age 28, the mother of three children, has always been considered excitable and inclined to nervous attacks of one kind and another. She had had no important previous sickness except gripe. The present attack began as follows: For about a week before the real onset of the symptoms she had not been feeling well. Her youngest child, about six months of age, while seated in a high chair suddenly, without any warning or cause, toppled over with the chair on top of him. The mother was in an adjoining room and turned around just in time to see the child in the act of falling. The child was evidently unconscious for a moment and the mother thought that the child had been killed by the fall. She experienced at this time a peculiar sensation in her legs, as if they were suddenly giving away under her. As soon as the child was seen to be uninjured the mother felt somewhat herself again, but still noticed the peculiar sensation noted above. To this occurrence the patient has always referred the origin of the symptoms which later developed. From this moment apparently a progressive inability to move her legs developed until at the end of three weeks she was compelled to stay in bed. Her family physician then suggested further advice and I saw the case about three weeks after the initial symptoms.

At the first examination it was seen that there was present a total paralysis of most of the muscles of both legs. This paralysis was seen to be flaccid in type. The amount of voluntary motion present was as follows: A slight inward and outward rotation of both legs at the hip, slight flexion at the knee in both legs, extension of the left leg at the knee to a minimal degree, absent in the right. No movement at all at the ankle. The muscles felt soft, but no apparent atrophy could be discerned. A sensory examination revealed the fact that the distribution of the areas of anesthesia and hyperesthesia was strictly bilateral and occupied exactly similar positions on each extremity, and further



— Hyperesthesia.
≡ Anesthesia.

the bands of hyperesthesia could be moved up or down, under the influence of suggestion. In addition the limits of the areas affected from the normal areas were so sharply drawn that the line of division could be exactly demonstrated. A reference to the diagram will make the total sensory disturbance clear enough. At no time was there found any pain along the course of the nerve trunks and at no time were the muscles themselves at all tender. There was always some marked paresthesia and indefinite feelings of pain referred to the ankle of both legs. The reflexes gave the following: Both knee jerks were absent, Achillis and plantar completely gone. No Babinski. The pharyngeal, conjunctival,

corneal, nasal, were absent. Abdominal, tendon and periosteal in the upper limbs appeared normal. Electric examination of the paralyzed muscles showed a total lack of response to faradic excitability in both muscle and nerve in the muscles of the paralyzed members. The general physical examination revealed nothing of importance except a rapid heart which has always been present. The heart and lungs, urine, etc., were normal. A glance at the sensory chart will show that the initial sensory disturbance could not be explained upon any basis but that of a hysteria, particularly when the fact is noted that the distribution of some of the zones of hyperesthesia, especially the one below the knee, could be changed by suggestion. As the case advanced the definite limits of the sensory zones gradually became merged until now, about four weeks after the first examination, the sensory picture bears no resemblance to the early condition. At present the anesthesia of the conjunctiva and the pharynx still exists, but the ribbon of hyperesthesia below the knee has disappeared as has likewise the glove anesthesia in the fingers and hands. The case is now plainly one of a multiple neuritis, probably infectious in nature, implanted upon an individual potentially hysterical so that the mental trauma awoke the hysterical symptoms at about the same time that the neuritis began to manifest itself. The difficulty in the diagnosis in this case, as in the former, lay in the matter of differentiating the two conditions so that the masking of the one by the other might not give rise to such confusion in the clinical analysis of the case as to demand a definite single diagnosis. In this case the diagnosis of hysteria seemed so clear at first that the symptoms depending upon a clearly present organic disease were regarded as something either accidental or the result of previous illnesses of one kind or the other. This way of thinking was made more insistent by the thought that it is always necessary in a hysterical condition to be absolutely certain of the diagnosis for the effect on the patient and for the proper development of the logical therapy.

These cases present types of conditions which must be much more frequent than is commonly supposed because they comprise only a small per cent. of the material already at hand. They are frequently overlooked chiefly for the reason that symptoms are forced into the diagnosis of a case in order to create a certain mental ease on the part of the attending physician. It is extremely likely that in all organic diseases of the nervous system there are to be found certain symptoms that can not be adequately explained by the anatomic effects of the disease, but which must be the result of the effect on the mind of the patient of the "disease trauma" which is present. If such things are looked for with greater care they will be found and much light may be thrown on the phases that functional symptoms take when they are a part of a definite organic disease of the nervous system,

THE "PSEUDO-SCORBUTIC TYPE" OF ACUTE LYMPHATIC LEUKAEMIA.

BY JESSE S. MYER, M. D., St. Louis.

The acute lymphatic leukæmias are of interest, not only to those who observe them for the first time, but also to those who have been so fortunate as to have observed a number of cases, for each has its new features and new phases to present. They are not so uncommon, however, as to justify a detailed report of a single case unless, perchance, it is characterized by some very unusual feature. The chief interest in this report lies in the fact that the physical findings and the circumstances surrounding the case were such as to lead to a tentative diagnosis of scorbutus. No better example of the importance of prompt and careful examinations of the blood in every obscure case could be offered; for it was through this means only that, in a short time following the patient's admission to the hospital, a case which seemed unquestionably to be one of scurvy was promptly shown to be one of acute lymphatic leukæmia. That it is not unusual for cases of this sort to be misinterpreted may be inferred from the statement of Pincus, who says: "From the number of similarities, it may be conjectured that many of the obscure hemorrhagic cases described as morbus maculosus, scorbutus, etc., were in reality acute lymphatic leukæmia; especially since with comparatively little attention to the blood examination an increase in leucocytes is mentioned in more than one of them," and calls attention to the work of Dennys and Zimmerman and others. According to the different phases that this disease may assume, Gilbert and Weil* have divided them into three classes: (1) Typical acute leukæmia, chiefly characterized by glandular swellings; (2) the hemorrhagic form, characterized by hemorrhages into the skin and from the mucous membranes; (3) the pseudo-scorbutic form, characterized by involvement of the mucous membranes of the mouth and nose, with hemorrhage. It is a case of the third class that we wish to present.

During my recent service in the Jewish Hospital, a Russian, aged 37, was admitted to the wards in a very precarious state. He was partially delirious, as a result of a raging fever (104.6 degrees upon admission); the condition of the gums and mucous membrane of the mouth was such as to make articulation impossible, and he knew no English whatever. It was utterly impossible, therefore, to elicit a history from him even with the aid of his fellow-countrymen in the wards, for even during his lucid moments he could not enunciate plainly enough to enable them to understand him. He was a well-developed, well-nourished individual, about five feet, six inches in height, weighing one hundred and fifty pounds. Attention was at once directed to the mouth, which presented a very un-

* Gilbert and Weil, *Arch. ae Med. Experim.*, 1899, XI.

usual appearance. The gums were swollen to such an extent as to almost enclose the teeth, anteriorly and posteriorly. The mucous membrane of the mouth was swollen and hyperæmic, and bled upon slight provocation. The tongue was thick, dry and cracked.

His relatives knew nothing of his previous history and but little of his recent ailment. He had come to America from Russia, as a steerage passenger, eight weeks prior to his admission into the hospital. So far as they knew, he had never had a serious illness in Russia, and had been perfectly well during the first two weeks of his sojourn in this country. During this period, he seemed ambitious and industrious,—and immediately sought a means of earning a livelihood for himself and his family. He had not brought his wife and children with him, but hoped to send for them as soon as he had earned his first American money.

About six weeks ago (October 15), he began complaining of sore throat, and visited the dispensary, where he was treated by the usual methods for acute tonsillar hypertrophy. The disturbance, which seemed to have its origin in the tonsils, gradually involved all of the mucous surfaces of the mouth. The gums soon became swollen and bled upon slight provocation, so that he was soon unable to take solid food. During the four weeks prior to his admission, he had taken liquids only, and as a result had grown very weak. They were unable to state how long fever had existed. This was all that could be elicited of his history.

In view of his birth-place—Russia—his recent voyage as a steerage passenger, and his unhygienic surroundings since arriving here, we at once thought of the possibility of scorbutus.

The physical examination revealed no hemorrhagic spots anywhere upon the body; the skin was pale and the mucous membranes anæmic; there were several pigmented areas over the right ankle and lower leg—evidently the remnants of old ulcers; no œdema; he breathed with some difficulty, constantly through the mouth (the cause for this is seen in the swollen condition of the gums, tonsils, soft palate and mucous membranes of the upper respiratory tract in general).

Mouth.—The *gums* extended to the free margin of the teeth, both above and below, anteriorly and posteriorly; the edges of the teeth are barely seen between the anterior and posterior layers of the gums (Fig. 1.); which are rather hard, somewhat granular in appearance, slightly bluish in color, the edges are indented and bleed upon very slight manipulation; there is no discharge of pus, pointing to the existence of pyorrhœa; there is no ulceration or erosion of the gums or mucous membranes, and the odor is not especially bad; the tongue is thick, dry, cracked and heavily coated. He has a highly arched palate. The tonsils, the anterior pillars of the fauces, the uvula and the soft palate are œdematous. On the posterior wall of the pharynx is seen considerable quantity of yellow

mucous. The mucous membrane of the nose is dry. The nasa-pharynx could not be examined.

Glandular System.—There are chains of enlarged lymph nodes in the anterior and posterior cervical regions on both sides. These nodes are about the size of navy beans and do not coalesce. The sub-maxillary and sub-lingual glands are considerably enlarged. These, as well as the lymph nodes, are painful to pressure. There are a few enlarged nodes about the size of peas, in the left axilla and two in the right axilla. The lymph nodes in the right and left groin are but slightly enlarged. Aside from this, the glandular system is not apparently involved.

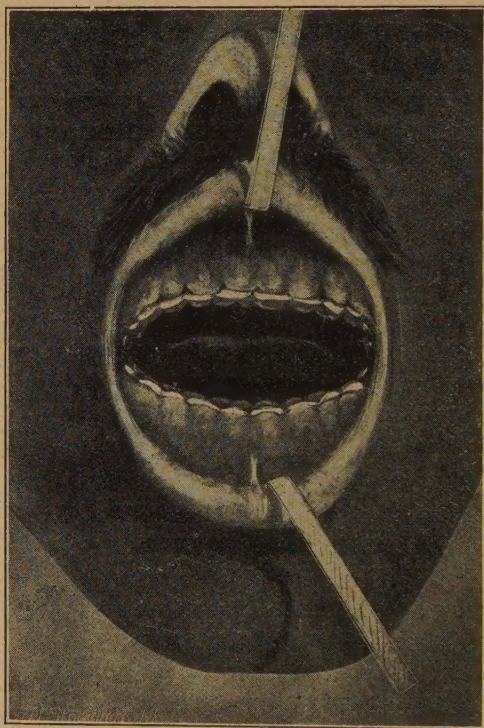


FIG. 1.

Heart.—The dullness not clearly made out on account of an existing emphysema. The apex beat is palpable in the fifth interspace. The heart-beats are rapid, but regular and strong. The first sound at the apex is impure; no murmurs to be heard. The pulse 120, fairly full and strong.

Lungs.—Over the right lower lobe posteriorly the percussion note is somewhat flat and a few moist rales are heard. Over the upper left lobe anteriorly, prolonged expiration. The lungs are otherwise normal.

Liver.—The dullness cannot be made out anteriorly; in all probability

It is interesting to note that the leucocytes increased within a period of two weeks from 78,600 to 158,000, and that the proportion of leucocytes to erythrocytes rapidly changed from 1 to 36 to 1 to 14. The decrease of the red corpuscles did not keep pace with the increase of the white. The sole increase of the leucocytes was in the large lymphocytes, varying within 14 days from 56.4 per cent. to 82 per cent. There is a steady decrease of small mononuclear lymphocytes and a rapid decrease of the polynuclear leucocytes.



FIG. 2.

With rapidly developing asthenia the patient died on the eighteenth day after his admission to the hospital. He was unable during this time to take any but liquid nourishment on account of the condition of his mouth, and but little of that. During the first ten days the temperature varied without remission from 103 degrees F. to 105 degrees F. Cold sponges and internal anti-pyretics had but little influence. The pulse varied from 110 to 120 and the respiration from 28 to 32. During the last week the temperature varied from 100 degrees F. to 103 degrees F.,

while the pulse varied from 128 to 150. At no time during his illness did he have hemorrhages excepting those from the mucous membrane of the mouth; and then only upon manipulation. No blood was detected in the feces, either upon microscopical or chemical examination.

Realizing the truth of the statement of Gilbert and Weil that in these cases "the physician's power stops with the making of the diagnosis," purely a symptomatic treatment was instituted.

Unfortunately an autopsy could not be obtained and the bone marrow, therefore, could not be examined. In the absence, however, of any enlargement of the spleen and the meagre lymphatic involvement, we would

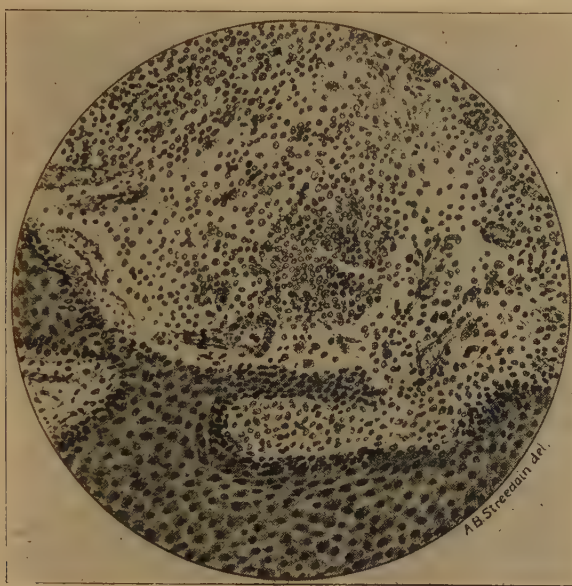


FIG. 3.

be justified in assuming that the chief pathological changes occurred in the bone marrow. Sections are here presented of a portion of the gums removed just prior to the patient's death. (Fig. 2 and Fig. 3.) Though the picture differs in no way from that of lymphoid deposits in other organs of the body, they at least give an idea of the extent to which this process may occur. The sections show large numbers of actively proliferating cells of the lymphocyte type embedded in the meshes of a delicate reticulum. In the words of Dr. Thompson, "The cells in general resemble closely the undifferentiated lymphocytes such as make up the mass of our tumors known as malignant lymphoma, or lymphosarcoma, as they are sometimes called. There is no difference between this growth and the

growth arising in lymphoid tissue which we term malignant lymphoma." The deposit of lymphocytes is so dense as to almost completely obscure the connective tissue fibres between which they have infiltrated. There is no evidence of ulcerations or erosions of the epithelial layers as might be expected through pressure. This may be explained by the fact that the deposit of the lymphocytes is not so pronounced just under the epithelial layer on account of the density of the tissues in this layer of the gums. The tendency is toward the deposit of circumscribed clumps of lymphocytes rather than diffuse areas.

Though the infectious nature of acute lymphatic leukæmia has not been demonstrated; its possibility has been conceded by many leading authorities. Loewit, for instance, in 1900, demonstrated, by a special staining method, peculiar characteristic forms in the lymphocytes, usually in their nuclei, which he took to be unicellular organisms or hemanœbæ. They were found especially in the blood-making organs. Bacteriological examinations of the blood have been frequently made with positive though not constant results. Notwithstanding this, however, the infectious origin seems the most probable. The acute onset, the temperature, the course of the disease and its rapid termination all point to its infectious nature. In our case, as in others that have been reported, the tonsils seem to have played an important role. According to the observation of Pincus, the disease is relatively frequent in children and the earliest symptoms are often referable to the head and neck. Inflammatory processes of the mucous membranes of the mouth, gums and throat are usually the first symptoms noticed. Bradford and Shaw call attention to the fact that the pharyngeal tonsils are enlarged in about one-half of the cases. That the most marked swelling in the cervical region is on the same side as that of the tonsilar enlargement, and that the tonsils are often covered with necrotic or diphtheritic exudate. Pincus corroborates these findings. Ebstein states that when the glands are painful and especially when they coalesce we must not be too hasty in attributing a leukæmic cause to them, since frequently a local irritation producing simple inflammatory swellings may be found, especially in diseases of the mouth.

We question very much if the enlarged lymph nodes in the cervical region in this case were of leukemic origin. The impression at once gained was that they were of inflammatory origin. They were the only nodes that were palpably enlarged though a few small ones were noted in the axilla and groin; they were the same chains that we so often find involved in acute affections of the mouth and throat; the sublingual and submaxillary glands were similarly involved and they were all exquisitely sensitive. It might be claimed that the tonsilar involvement in this case was either a coincidence or a secondary infection. Before any constitutional symptoms were complained of, however, the patient suffered with what he took to be an ordinary sore throat and which was treated as such

at the clinic, and these symptoms remained prominent throughout the course of the disease. Presupposing the infectious origin or acute lymphatic leukemia, these and the observations of others, would lead one to think of the tonsils as one of the probable portals of infection.

REMARKS ON A CHORION-EPITHELIOMA IN A MALE.

By C. FISCH, M. D., St. Louis.

Chorion-epithelioma in connection with pregnancy, has been known for a long time; its peculiar histology and fatally malignant growth have been the incentive for a great number of investigations in all parts of the world, that finally resulted in the now generally accepted opinion of an origin from fetal cells, from the epithelium of the fetal coverings and villi. This epithelium is even in its normal state aggressive as to the tissues of the mother, it destroys maternal tissue, enters into the blood-vessels, and is even in a normal pregnancy carried with the circulation into various organs of the maternal organism, is, for instance, always to be found in the capillaries of the lungs. Under normal conditions, this transplantation does not give rise to tumor formation, the cells are resorbed. It is probable that the resistance of the maternal organism is sufficient, as a rule, to ward off any danger from this parasitism. Under certain conditions this resistance yields, the fetal cells are able to assert their innate proliferative capacity, they are now malignant, and no resistance being met with, use the pabulum offered them, thus destroying vital tissues of the providing organism. This process is usually called a malignant degeneration, a term a priori inadequate, as a process cannot very well be called degenerative that asserts itself as malignant by an admirable capacity of growth and multiplication of cells. On the other side, morphologically and physiologically the cells of a normal chorion and those of a chorion-epithelioma cannot be differentiated, they are absolutely alike and only vary in the degree of the respect they hold towards the tissues, in which they live. It appears to us that in no condition this identity is clearer and easier demonstrated, and I do not agree with Pick and others, that they have seen a transition from normal to malignant fetal epithelium. There is no difference, except that of the varying reaction on the foreign tissue and the degree of liberty, allowing to unfold their proliferative capacity. The very fact that the cells of a chorion-epithelioma are identical with those of the fetal chorion has made possible the recognition of the process. In no transformation the necessity for assuming a favorable condition of the soil for its growth is so clear as here; given this, we will have a tumor with all the qualities of the original tissue, in which it arises. That the proliferative quality of embryonic cells must be greater than that of the

cells of the adult organism, is a well-known fact; but here, as there it is limited by the requirements of the whole, or, rather, by the correlative reaction of one of its constituents on the other. Without this an existence of a complex formation is not thinkable, cells are only parts of a whole, they do not form it. The inhibitory factor is given by the complex, not by the single cells.

Thus, the fetal epithelium, after pregnancy, finds in the maternal body a favorable soil, it is free from its limitation caused by the enrollment into the whole of the developing fetus and avails itself of it by unlimited growth and proliferation. That analoga to this process exist, under conditions that are not considered malignant, is so well known that I need only hint at the findings so often made after abortion.

All of this pointed for a long time to a specific relation of chorion-epithelioma to the female sex. It is only a few years since the attention of pathology was directed to findings in male individuals that could not be explained but as tumors of identical character. Findings of that kind had been made before, but not interpreted correctly under the bias of the conviction that such a tumor could form only in a woman. We owe it to Schlagenhauffer and mainly to Ludwig Pick, enabled by the classic studies of Wilms and others, to be in a position today to accept the existence of chorion-epithelioma in the male sex as a fact. So far, but 21 cases of that character have been described. Nineteen are collected in the latest paper on the subject by R. T. Frank, one was published lately by Dr. Nicholson in St. Louis, and the 21st is the one that makes the material of these remarks. Before entering into a discussion of the interpretation of the origin of this form of chorion-epithelioma, I shall give the history of the case and the findings made in it in short. A detailed description of the latter in Dr. Nicholson's case and in the one observed by me, will be published elsewhere.

The patient, a male, 26 years old, came under the observation of Dr. T. A. Martin for relief for an enlarged right testicle, that had begun to grow for a period of about six months. Taken to a hospital, the physical examination revealed the right testicle a hard mass, with reddish bluish discoloration of the skin, that was movable over it. There was no pain connected with the enlargement, only mechanical inconvenience. Further examination revealed a consolidation of the larger portion of both lungs, only the upper lobes, mainly on the left side, appearing free. Temperature slightly raised, very irregular, cough and bloody sputum. As suspicion of pleuritic effusion was present, a puncture was made, yielding only a small quantity of blood. The general condition was good, examination for tubercle bacilli was negative; altogether nothing pointed to tuberculous infection. Considering the general condition and on the urgent request of the patient, it was thought

justifiable to remove the testicle. This was done Feb. 21. The patient did not suffer any shock, and remained in the same condition as before. The testicle showed on section microscopically a picture that at once reminded of a syncytioma. Fields of clotted blood with areas of a whitish color was all that could be seen. No normal portions of the organ could be made out, testicle and epididymis formed one mass, of the same character, only slightly marked off from each other. The chord was normal. It may be said here, shortly, that the microscopic examination showed a typical chorion-epithelioma.

After a few weeks in which the condition of the patient had not changed markedly, although emaciation began to be apparent, dyspnea began to be present, and suddenly a paralysis of the right arm set in. This was followed by paralysis of the right leg, deviation of the tongue and enlarged right pupil. There was later on interference with speech, blood appeared in the urine, that otherwise was normal, the emaciation became intense, pulse and respiration rapid, hectic temperature, at times, no interference with digestion. Convulsive spastic attacks occurred repeatedly, and the patient died March 28th. The autopsy made immediately after death confirmed the diagnosis made during life, metastatization of the chorion-epithelioma extensively into the lungs and kidney, the subperitoneal periaortic lymph glands, bronchial and tracheal glands, one tumor under the scalp of the forehead, a large metastasis in the white substance of the left posterior, frontal lobe, encroaching on the gray matter of the posterior or third frontal convolution. A small tumor was found in the neighborhood of the opening of the carotid canal on the right petrosus. Liver, spleen and the other viscera were not affected.

The findings resemble those made in a number of other similar cases, and are identical with those found in cases of death from chorion-epithelioma after pregnancy. The histologic structure of the tumor and the character of the lesions are the same, down to the finest cystologic details, even to the ciliary fringe of the syncytium masses. As I cannot enter here into a more detailed description of the details of the findings made, it is sufficient to state that the case agreed in all respects with what we knew before about this form of malignant tumors. Since the correct interpretation of this form of disease is only of recent date, it is not unlikely that a number of patients have gone to the grave with another diagnosis.

The question put by chorion-epithelioma in the male is that of its origin. The two cases described in these remarks are very characteristic in this direction. Dr. Nicholson's is typical; here we had to deal with a retro-peritoneal tumor of large size, in most of its extent a typical teratoma, containing in its mass all the varieties of tissue forma-

tions of the human organism, including organoid structures and even organs (spinal or sympathetic ganglia). One of these constituents, the one that represented the cells of the chorion-epithelioma, became malignant, as the views are, formed metastases in vitally important organs and caused death. That this is not a specific privilege of the chorion-epithelioma is shown by some cases, in which the metastases from such a teratoma contained all or at least a number of the tissue varieties present in the primary tumor. In other cases the tumor consisted entirely of chorion-epithelioma and of nothing else, as in one that Longcope described. The case that I have been describing in this respect is exceedingly interesting. In the first place, it is possible to demonstrate in certain portions of the primary tumor as well as of the metastasis cells, that are not chorionic, but well differentiated into cubical and cylindrical rows of cells with a fixed position of the nucleus and forming often typical small cyst-like arrangements. They in all respects resemble the neuro-epithelium of the fetus in its earliest stage of its development, and what is more, I have been able, like Pick has also shown, to see that there are gradual transitions between these cells and chorion-epithelium. The typical arrangements and structure appears more definitely even in the metastases, than in the primary tumor. The near relation of the two formations to each other is clear. In the second place, while to a superficial examination the primary tumor showed only the structure of a chorion-epithelioma, I have succeeded after a thorough investigation of numerous portions to demonstrate a small area, where a typical teratomatous condition obtained, besides the chorion cells, cartilage cells, embryonic connective tissue and columnar ciliated epithelial cysts and canals being present. Similar observations have been made before, they lead us to the conclusion, that chorion-epithelioma is a tumor, either a constituent of a teratoma, or a tumor in which the teratomatous portion is reduced to a minimum by the excessive proliferation of the former. Whether this is so in all cases is doubtful, but even if it should not be, it would not change the conclusion that must be drawn from the study of the character of these tumors.

While we can assume that in the chorion-epithelioma following pregnancy, the tumor originates from the fetal epithelium either due to predisposing conditions of the maternal tissues or by a specific alteration of the biologic character of the epithelium itself (this is, however, not very probable on the basis of remarks made before), such an interpretation fails in the male tumor. Here we must look for another explanation, and that is given by the consideration of the frequently teratomatous combination.

It would be impossible to detail here the views entertained today about the origin of teratomata. There are still voices that explain it by mys-

terious metaplastic processes of adult tissue cells. It must be said above all, that, neither for this nor the opposite opinion positive proof can be brought. It must be insisted on the absolute absence of proof, that fully differentiated cells can return to a condition, in which they are able to regenerate all varieties of tissue, of which the adult organism is composed. I do not forget that positive proof seems to have been brought for such metaplasia between mesodermic cells and ectodermic structures. Aside from the fact that these observations are absolutely isolated, and to my knowledge have not been confirmed by others, they would and could not mean that we must induce from these the possibility that a connective tissue-cell or an epithelial cell of the adult individual would be able under any condition to build up by proliferating formations, in many respects suggesting the constitution of the grown organism. As far as our knowledge has gone, and as far as observation and experiment can be adduced in confirmation, we must, today, date back the origin of all of these tumors, to a period of development, at which the differentiability of the single embryonic cells allowed of the independent development of a whole or partial individual, or at least of the activation of an attempt, to produce all of the tissue-differentiation that the cells in this complex combination undergo. Experiments have shown that blastomeres are able to produce when separated from the connection with their companions, normal or abnormal or monstrous individuals or masses of tissues, not organized, but containing all of the tissue varieties of the normal organism. Misplacement and inclusion of such blastomeres during fetal development at the first stages of it, would fully account for the formation of teratomata.

The assumption that they and most all tumors have their anlage formed during the fetal development, presupposes the possibility that transposed fetal cells remain in a dormant condition for a long time. Although they may begin to grow and proliferate during the intrauterine period, they, as a rule, make themselves visible only after birth and in many cases after a longer or shorter number of years. Cases have been reported of typical organized teratomata, that began to grow, after the 50 years of life was passed. This dormancy of cells is just now widely discussed. Direct evidence for the one or the other side has not been obtained. The experiments performed by injecting adult animals with embryonal cells of the same species, that more or less resulted negative as to growth and especially as to tumor formation mean nothing for either question, as we so far know nothing about the factors conditioning the growth of a tumor. What we know is mainly that tumors even of microscopical size are always independent formations, nowhere genetically connected with the homologous tissue and never including the latter into the formation of tumor cells. For skin-carcinomata, it has been demonstrated that very frequently small

tumors exist, microscopical in size, that never had been noticed during life; they have remained "anlagen," never meeting the conditions that would allow them to assert their proliferative capacity. It is impossible here to discuss the material so far accumulated that in this way accounts for the origin of tumors; it is very great, and, although only in a circumstantial way, conclusive. The opinion of changes of fully differentiated tissue into tumor tissue is on the wane, the more exact the investigations become and more importance is attached to the exclusion of mistakes in observation, the more the instances of tumorous metaplasia dwindle together. For tumors, today, the doctrine is that they are tumors from the beginning, grow only out of their own cells and never have a genetic relation to the homologous cells adjoining them, nor have the capacity of making the latter change into tumor cells.

It is possible that an extensive and scrutinizing investigation of fetal tissues, especially at those places where later in life tumors occur with predilection, will bring evidence more direct than the already existing circumstantial proof. Chorion-epithelioma has taught a great deal in confirmation of this view. It has to a degree encouraged the way in which lately the tumor problem is attacked.

A CASE OF ANOREXIA NERVOSA IN AN INFANT.

By ALFRED FRIEDLANDER, M. D., Cincinnati, O.

Perversion of appetite and want of appetite are common manifestations in childhood. In malnourished, nervous, finicky children, particularly in children of the so-called better classes of society, it is not uncommon to find instances of perverted appetite. There is the desire for excessive quantities of sweets and starchy foods, and the absolute refusal to take more wholesome articles of diet. Or, the child is willing to eat meat in quantities, but refuses vegetables, milk, etc. Such cases are particularly often found from the second to the seventh or eighth years of life.

During adolescence, cases of anorexia are not uncommonly found, particularly in girls. These girls are usually chlorotic, with an over-development of the intellectual and emotional side. Physically, they are underdeveloped and mal-nourished.

But cases of true anorexia nervosa, as a distinct neurosis, without demonstrable organic abnormality, are much rarer, especially in early childhood. At this time of life, it is true that one form of perverted appetite, which must also be considered as a habit neurosis, is very common. This is the neurosis to which the name of pica, or dirt eating, is given. But while it is true that in this condition there is the constant desire for the taking of unwholesome, even disgusting materials, it is charac-

teristic that other more normal articles of diet are not refused. Indeed the appetite may remain excellent, and the general condition of the patient be very good.

In true anorexia nervosa, however, there is an absolute refusal to take food of any sort. This voluntary starvation may go on for considerable periods of time, with resulting emaciation and great prostration. Indeed, cases of this sort may end fatally, and quite a few fatal cases have been recorded in the literature. Most of these cases have occurred in persons between 15 and 25 years of age, and a considerable majority of all the cases have occurred in women. There has naturally been much discussion as to the pathogenesis of the condition. It appears settled that we must regard the disease as a neurosis, whose etiology remains absolutely obscure. That it is allied to, perhaps a manifestation of, hysteria would appear to be probable. No organic basis for it has been found, and in the autopsies on the fatally ending cases (naturally few in number), the examinations have invariably been negative.

In infancy, the condition—especially in its severer forms—is very rare. It is true that at the time of weaning, many infants refuse to take food for short periods of time, and the transition to food other than breast milk is sometimes accomplished only by the exercise of much patience and perseverance. In most of these cases, starvation for shorter or longer periods is a sovereign remedy, and ordinarily within a few days, the process of weaning is successfully accomplished. It happens in some cases, however, that at the time of weaning there is a true anorexia, which may persist for some time, occasionally leading to the most serious results. The following case is an instance in point and its rarity would appear to justify its report:

G. W., male, age 1 year; the first and only child. The mother, who must be classed as decidedly neurotic, is otherwise perfectly healthy. The father admits having had syphilis many years before his marriage. The child itself shows absolutely no signs of hereditary lues, nor has it shown any at any time since birth. Except for an undescended testis it shows no abnormality. It was entirely breast fed for a year and developed normally. Dentition began at the age of six months, and at the age of a year, the child had eight teeth. The weight at this time was 25 pounds. The bodily functions were all normal. There had never been any tendency to gastro-enteric troubles; the child had nursed regularly, at the proper intervals. The mental development was distinctly above the average, indeed the child might easily be classed as somewhat precocious.

From the time that the child was nine months old, attempts had been made—at my suggestion—to add some artificial food to the dietary. These attempts had not been successful, the child had invariably refused to take

anything but the breast milk. It would, however, always take water from a cup. When the mother was finally prevailed upon to allow the child to be weaned (it was then just a year old) a trained nurse was called in, who assumed sole charge of the child. Various foods were offered, all of which were refused. The child was allowed to nurse only once a day. This attempt at weaning was persisted in for a week, without success. After consultation with Dr. F. Forchheimer, it was then decided to remove the child to a hospital to try the effect of more prolonged starvation. This was accordingly done. For four days and nights, the child was given nothing by mouth, eight ounces of normal saline solution being given by rectum three times in the twenty-four hours. At the end of this period various foods were offered the child: milk, cocoa, cereals, gruels, etc. Hot foods, ice cold foods, luke warm mixtures, sweet mixtures of many kinds were tried, all of which the child refused to touch. Water was, however, eagerly taken. At this time, the child weighed twenty-two pounds. The urine contained neither albumen nor sugar, but acetone was present in considerable amount. As is well known, the acetonuria of starvation is a phenomenon very frequently observed. Later, when the child received nourishment, the acetone promptly disappeared.

Forced feeding was now instituted, eight ounces of a milk and barley water mixture being given four times in the twenty-four hours by gavage. During its stay in the hospital, the child, even during its starvation period, appeared perfectly contented, crawled about the floor of its room, played with its toys, enjoyed its daily outdoor ride, and slept well. While the gavage was being used, the attempt was constantly made to induce the child to take food, but always without success, except that on one occasion it did take a small piece of fried bacon. At the end of a week, the child was taken home, the gavage being continued. The mother insisted that she be allowed to nurse the child, and as the breasts were still secreting, the permission was given. But the child absolutely refused to nurse. At this time, bovine, in teaspoonful doses, undiluted, was offered, and was promptly taken. Freshly pressed beef juice was, however, absolutely refused. The attempts to feed the child naturally, were kept up continuously. At the end of another week, the child suddenly developed a fondness for farina. While it took the bovine from a spoon, it refused to take the cereal in this way, and it was therefore given on a cracker. Within a day or so, crackers were taken, also. After another week, it took various cereals, and some milk, so that the gavage was discontinued. Thereafter, progress was rapid, and in another month, the child was taking various foods naturally and with appetite, had fully recovered its strength, and had gained four pounds in weight. It has remained perfectly well since this time.

The history and course of this case are strikingly like many others reported in the literature. It is, however, most unusual to find as severe a case as this in so young a child. It is not at all probable that the lues of the father could stand in etiological relation to this affection in the child. A point of much more importance would appear to be the neurotic tendency, inherited from the mother. Why such a neurosis should develop, with such intensity at the time of weaning, it is not possible to say. The case has been reported merely as being of some clinical interest, and without any attempt to explain the mystery of the origin of what is certainly a habit neurosis.

ABNORMAL RETENTION OF THE DEAD OVUM.

BY HUGO EHRENFEST, M. D., St. Louis.

As a rule the death of the embryo or fetus within a few days is followed by attempts of the uterus to rid itself of the ovum. A less prompt expulsion is not rare. A young ovum may be retained for several weeks and then be expelled in the form of a bloody or fleshy mole. A retention of more than six weeks is uncommon and must be regarded as abnormal. But even such cases are not rare enough to justify a record of each observation in literature. In the following a description is given of two instances of abnormal retention of the dead ovum, because they seem to throw some light on the still obscure etiology of this peculiar condition and offer some interesting diagnostic points.

The uterine contractions, which usually soon follow the death of the fetus, commonly are considered due to the fact that the dead ovum within the uterine cavity acts like a foreign body. The onset of labor at full term is explained by some authorities in the same manner. They claim that the progressive necrosis in the decidua and in a portion of the chorionic villi, as pregnancy approaches its normal end, gradually separates the ovum from the uterus and transforms it into a "foreign body." To be sure, this theory of the onset of labor pains is not generally accepted and certainly cannot be considered the only cause of labor. Schaeffer (*Winckel's Handbuch d. Geburtsh.* 1904. I. B. 2 H., p. 868), in discussing the modern conception of this problem concludes that the ecobolic action of the uterus at the normal end of pregnancy begins as the cumulative result of several factors, among them the coagulation necrosis in the decidua and fetal placenta. In the opinion of most authorities, however, the most important role in the causation of labor at full term is played by certain nerve ganglia located in and near the cervix. It is assumed that these ganglia are irritated by the passive stretching of the upper portion of the cervical canal and by direct pressure of the presenting fetal part, when the fetus has reached

a certain size. However, this theory of the causation of uterine contractions is not adequate to account for the uterine contractions in a spontaneous abortion during the earlier months of pregnancy. The old "foreign body" theory, therefore, has remained the one still almost generally accepted for the explanation of the expulsion of the dead ovum in cases of abortion.

It is the rule, that the injection into the pregnant uterus of certain fluids such as glycerine, tincture of iodine, etc., or the introduction of a bougie, a strip of gauze or any other foreign body, is followed promptly by the ecbotic action of the uterus and results in the interruption of pregnancy. Of course, for such procedures a direct irritation of those ganglia in the cervix cannot be positively excluded, but it undoubtedly seems more plausible that in these instances the uterine contractions are brought on as the result of the presence of a foreign body in the uterine cavity. The foreign body theory necessarily assumes a distinct sensibility or irritability of the uterine cavity in order to explain the transmission of an intrauterine mechanical irritation to those central or local nerve centers which control the contractions of the pregnant uterus. A lack of such an irritability will then account for the not uncommon observation that the pregnant uterus may prove refractory to even grave insults, such as the introduction of gauze packing, or of instruments. A lack of normal irritability is also considered by Graefe (*Ruge-Festschrift*, 1896, p. 38) the primary cause of a pathologic retention of the ovum after the death of the fetus. I consider the following case valuable proof for this latter theory.

Case I.

Mrs. L., 34 years old, first seen May 25, 1903. She gives the following history: Has given birth to six children, the last four years ago. Menstruation always regular; last regular menstruation began September 1, 1902. At about October 20th a vaginal discharge with slight admixture of blood appears. This discharge persists for about two to three weeks. She consults a gynecologist who has attended her in previous confinements. He positively excludes a pregnancy. Beginning of December she once more sees this physician because she is inclined to believe that she is pregnant. He again assures her most positively that she is not pregnant, and in order to prove to her satisfaction that she is mistaken, he introduces a uterine sound. Five days later she has a profuse hemorrhage, which is stopped by another physician, the gynecologist being out of town. Shortly afterwards her breasts begin to swell and about the middle of February (22 to 23 weeks after last regular menstruation) she feels fetal movements. She is examined by the gynecologist and another physician, who is called into consultation, and

is informed that she is not pregnant and that her "fetal movements" are but a product of her imagination. Patient is convinced that both physicians are mistaken. Some time in April (about five to six weeks ago) the fetal movements suddenly cease. Patient once more calls the gynecologist, who, in consultation with another specialist, informs patient in a most emphatic form that she is mistaken and certainly is not pregnant. These same physicians see the patient once more on May 23d (two days ago) and repeat their assurance. At the same time the patient is advised to submit to an operation for her large umbilical hernia. Such an operation then would help to clear up the cause of her present condition, which possibly is due to some ovarian trouble. Patient flatly refuses this operation, because she is convinced that she is pregnant and carries a dead child in her uterus. Her family physician is consulted and confirms her in this belief. He suggests to the patient to consult me.

I see the patient May 25, 1903, at 5 p. m. Of the findings only the following seem of interest: Patient is extremely stout. The breasts contain a large amount of colostrum. An umbilical hernia of about the size of a fist lies distinctly to left of middle line of body, so that one immediately gets the impression that the right half of the abdomen is more extended than the left. Abdominal walls excessively thick. Palpation rather unsatisfactory. Apparently there is a greater resistance on the right side of abdomen. No distinct tumor can be palpated. Percussion readily reveals an area of dullness ending about four inches below ensiform process, to left in left mammillary line, to right in middle axillary line, reaching down into the pelvis. Auscultation negative. No fetal heart sounds can be detected. In spite of the positive assurance of the patient that she never had any fever, temperature is found to be 100, pulse 76. In order to settle, if possible, the differential diagnosis between ovarian cyst and pregnancy an attempt is made to cause the soft tumor to contract. The abdomen is vigorously massaged for about six to eight minutes when suddenly the indistinct resistance in the right side of the abdomen transforms into a hard tumor of approximately the size, previously outlined by percussion. This contraction, the fact that the palpable tumor corresponds in size and shape to a uterus pregnant thirty weeks or a little more, the history of the case as given by the patient and the slight rise in temperature, induce me to make the positive diagnosis, viz.: Intra-uterine pregnancy, with retention of a dead fetus for about five to six weeks. Before I leave the patient's room she has another uterine contraction, this time distinctly felt by her. Since patient is near the normal end of pregnancy, two contractions have actually occurred, and no indication for immediate interference is present, I advise to wait a day or two for further developments.

Next morning at 5 A. M. patient has a few hard labor pains. At

6:30 membranes rupture and a large quantity of fluid escapes, of chocolate color, containing some blood. Labor pains varying in strength continue all day. At 4 P. M. cervical canal admits four fingers. At 8 P. M. canal is completely opened, right arm of fetus has prolapsed. Delivery *conduplicato corpore* seems impossible. Therefore, at 9 P. M. patient is anesthetized for a version. The macerated fetus is found in such a position that its feet cannot be reached. Chest and neck are presenting. The neck is severed with large scissors and first the fetal trunk, then the head extracted. Placenta is spontaneously expelled forty-five minutes *post partum*. Uterus contracts well. Recovery undisturbed.

Fetus is in advanced stage of maceration; as far as can be ascertained, its length is 35 to 40 cms. Placenta is of size of the palm of a man's hand, thick, pale in color and contains large white infarcts. Membranes are complete, very friable and of a brownish-green color.

The chief interest of this case undoubtedly lies in the fact that the introduction of a sound into the uterus during the fourth month of pregnancy causes a hemorrhage, but not an interruption of pregnancy. This uncommon occurrence can satisfactorily be explained only with a lack of normal irritability of this uterus and it is extremely suggestive that this deficiency also is responsible for the retention of the dead fetus for about six weeks. The expulsion of the fetus at that time, in my belief, is due to two causes: to the uterine contractions resulting from the massage and the proximity of the normal end of pregnancy. The interest of this case from the standpoint of diagnosis is evident.

Features worthy of note are presented by the following other case of abnormal retention of a dead ovum.

Case. II.

Mrs. N. 26 years old. Two partus at full term, the last August 19, 1904. Patient has been suffering for several years from typical disturbances caused by a retroflexed uterus, which have become more annoying after the last confinement. Therefore, a vaginal vesicofixation and perineo-plastic is performed on April 3, 1905. Recovery undisturbed. Menstruation after operation regular. On July 15, 1905, patient consults me again, because her last menstruation, on July 8th, has been very scanty and has lasted only three days instead of five to six as usually. On examination uterus is found approximately of normal size in complete antversion. Patient is informed that there is no sign of pregnancy present. She then leaves town, but remains in doubt concerning her condition, because she has some peculiar longings for food exactly such as she had in the previous pregnancies. Her fears are finally dispelled when the August menstruation appears at right time, of normal character and duration. *Menstruation from now on perfect*

ly regular and normal. All during the summer patient does not feel "just exactly well." Her appetite is poor, there always is some gastric disturbance, but never real nausea or vomiting. She belches a great deal and very often has a bad taste in her mouth. Later in fall she often has chilly sensations; in November and December frequent attacks of headache. Soon after the operation a whitish vaginal discharge appears, which gradually grows worse. In August and September it is quite profuse and of a greenish color; at about November it becomes more reddish-brown and has a very offensive odor. Since end of December this discharge is extremely annoying. Permanganate douches are used, but practically without effect.

On January 25, 1906, just twenty-nine or possibly thirty days after her last menstruation, she begins to flow. On the third day this discharge becomes brown in color. On January 31st, while playing with her child, she is hit in the abdomen by a ball. Later in the evening of the same day she has a few severe cramping pains in her lower abdomen. The flow again becomes bloody and free. On February 1st, all during the day hemorrhage is free; in the evening cramping pains start again, which early next morning are labor-like in character. At about 7 A. M. (February 2, 1906) a large clot is expelled containing a complete ovum. Pains cease promptly. On February 14th the bloody discharge has disappeared. Uterus is found slightly larger than normal, in perfect antiversion. Nowhere tenderness to pressure. Further recovery uninterrupted. There was no rise of temperature.

The expelled ovum is a typical flesh-mole of pear shape, two inches long. A longitudinal section opens a small amniotic cavity of about the size of a pea. No trace is left of a fetus. The thick wall of the mole consists of coagulated blood, containing numerous small white particles which look like concrements of lime salts. Microscopical sections show a large number of chorionic villi of normal appearance. Both the syncytial and the Langhans cells layers of most villi are distinctly visible.

The expulsion of an ovum in this case certainly came as a surprise. Since the patient did not consult me from July 15, 1905, until February 2, 1906, a diagnosis of pregnancy for obvious reasons has not been made, but it is more than doubtful whether this diagnosis could have been made. The uterus would have been found somewhat larger than normal; however, in the presence of a regular menstruation of normal type, a pregnancy hardly would even have been suspected. From a very large number of cases of abnormal retention of the dead ovum compiled by Ernst Frankel (*Volkmann. Klin. Vortr.*, No. 351, 1903), it can be seen that a regular menstruation during the period of retention is extremely rare. The interesting fact may be pointed out in this con-

nection that this case proves that ovulation may go on while an ovum is present in the uterine cavity.

In consideration of the history and symptoms, quoted above, no doubt is left that the ovum has died approximately in the beginning of August and was retained for about six months. The presence of normal chorionic villi in this ovum does not speak against such an assumption; on the contrary, it is a condition almost typical of retention. Even in ova which were retained for more than a year, chorionic villi of practically normal appearance have been found. On this very fact a theory is based which satisfactorily explains this peculiar phenomenon of pathologic retention, at least in some instances. The death of a very young fetus causes only little disturbance in the total circulatory area of the ovisac which, in comparison, is so much larger. The resulting necrosis may be limited to a small portion of the chorionic villi. The rest of the chorion remains intact and, at least for some time, continues its vegetative function. Thus the ovum, in spite of the death of the fetus, is still partially alive and is not a "foreign body." In the opinion of Schaeffer the endometrium gradually is restored, the area of attachment of the ovum slowly reduced until the first menstruation leads to the complete detachment and prompt expulsion of the ovum. Many writers, in a similar manner, claim that the final expulsion of a retained ovum is brought about by the combined effect of the "foreign body" irritation *plus* the temporary uterine congestion at the time of an expected menstruation. The second case, in my opinion, furnishes valuable support for this theory. In this case menstruation continued regularly, hence there cannot be any doubt from the history, that the ovum, which was retained for six months, actually was expelled in this particular instance, in connection with a menstruation.

THE SUBMUCOUS RESECTION OF THE NASAL SEPTUM FOR THE CORRECTION OF ITS DEFORMITIES.

By WILLIAM E. SAUER, M. D., St. Louis.

Although rhinologic surgery has made remarkable advancement in recent years, possibly no operative procedure has been taken up with as much enthusiasm by rhinologists as the submucous resection of the septum. There have been a great many contributions made to the subject within the last five years. There has also been quite a discussion as to whom the credit of the operation is due. Killian, Hajeck, Menzel of Europe and Freer and White of this country have been most active in placing this operation on a scientific basis.

Briefly, the operation consists of making an incision through the mucous covering on one side of the septum at or near the free margin

of the quadrilateral cartilage. This incision is carried through the cartilage, being careful not to cut through the mucous covering on the other side. The cartilage is then separated from its coverings on both sides through the incision. After this has been done the cartilage is removed. If the bony septum is deviated it is treated in the same manner. When enough of the cartilage and bone has been removed the cut surfaces are brought together and held in place by tampons.

As for the indication for this operation, all authors are not agreed. Killian and Freer believe all deformities of the septum requiring operation should be done submucously. Douglas, Sluder and a number of others believe the method of Ash Gleason or some modification to be more suitable in some cases.

The age limits for the operation have not been fixed. Killian states that owing to the fact that we do not know how much of a part the septum plays in the development of the nose, this operation should not be done on children under twelve years of age. Stolte has performed this operation on a child of five years. Moeller has operated on three children under ten. Freer has operated on twenty-seven children between seven and fifteen years. The latter believes the operation to be suitable for children at all ages. The upper age limit depends entirely on the necessity for such a step. While it is true that a number of submucous resections have been done on cases past fifty, it is a well known fact that old people do not bear nose operations nearly so well as the young; so this operation should be done on people past fifty with the greatest caution. Among the contraindications for this operation are acute rhinitis, syphilis and other conditions contraindicating operation on other parts of the body. Killian strongly advises this operation in the early stages of tuberculosis of the lungs, as he believes the early establishment of free nasal respiration in a beginning tuberculosis can not be over estimated and should precede any other form of treatment.

In order to avoid sepsis the operation must be done under the rules of aseptic surgery. The technic should be as faultless as in an abdominal section. The rules advocated by Killian are that the face of the patient should be covered with a mixture of prepared chalk and water, which is allowed to dry and then is washed off with soap and water in order to remove the fat in the skin. The nasal vestibule is thoroughly cleaned. The vibrissæ are closely clipped. When there is no suppuration in the sinuses the douche is dispensed with. If there is a sinus suppuration the nasal passages are carefully irrigated with normal saline solution. The head of the patient is covered with a sterile towel so that the operator can move the head in any desired position.

As to the position of the patient during the operation and the anesthetic employed, the different operators vary. Killian always operates

in the upright position, the head of the patient being supported by an assistant. Freer and White usually operate in the recumbent position. The advantage claimed for the recumbent position is that the fainting, which sometimes occurs, is overcome and that the operation can be done under a general anesthetic. During the past two years I have made it a rule to give the patient a half ounce to an ounce of whiskey with a thirtieth of strychnine just prior to beginning the operation. Since that time I have not had a single case of faint and the operations were all done in the sitting posture. Prior to that time I was frequently interrupted by the patient becoming faint and the operation had to be completed in the recumbent position. The advantages of the upright or rhinologic position are so evident that I shall not detail them.

Anesthesia is produced by rubbing the mucous membrane on both sides of the septum with a cotton swab dipped into a 20 per cent. solution of cocaine. Adrenalin chloride is applied in the same manner in order to make the parts as anemic as possible. If the deviation of the septum begins far forward I inject a few drops of a 1 per cent. solution of cocaine under the muco-cutaneum on each side of the septum. Recently I have employed the Brown cocaine-suprarenen tablet as advised by Killian and found the bleeding to be decidedly less. I have never employed the cocaine in powder form as advised by Freer. His method is to first apply the adrenalin and then apply the cocaine powder on a moist cotton swab. He applies this frequently during the operation, claiming a more complete anesthesia and he has never seen a noteworthy cocaine intoxication from this method. Just where to make the incision through the muco-perichondrium has been a much discussed point. The majority of operators make the incision on the convex side of the septum. Von Eichen always makes the incision on the left side, while Ballenger does the same when he makes his incision well forward through the muco-cutaneous membrane as advocated by Hajeck and Menzel. The latter always make their incision at the free margin of the quadrilateral cartilage. Killian makes his incision about one-half centimeter posterior to this. (As shown in Fig. 1.) Both Hajeck and Killian's incisions are curved, beginning at the floor of the nose and extending forward and upward. The incision of Killian is L-shaped, making a flap of the muco-perichondrium, which is pushed up out of the way, giving a clear open view of the posterior part of the septum. Both these incisions have their advantages and disadvantages. In both the Killian and Hajeck incisions there remains a pocket between the two muco-perichondrial surface after the cartilage and bone have been removed. The chances for infection are much greater, owing to insufficient drainage of this pocket. In a personal interview Killian stated that no harm was done when one side of the muco-perichondrium was

accidentally perforated, in fact, it was often an advantage, especially when much of the bone was removed. In the Freer incision there is no pocket formed, but the healing is somewhat delayed as this must necessarily be by granulation.

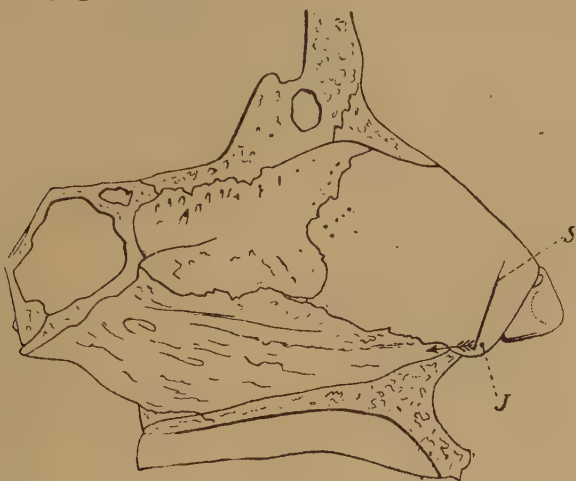


FIG. 1.

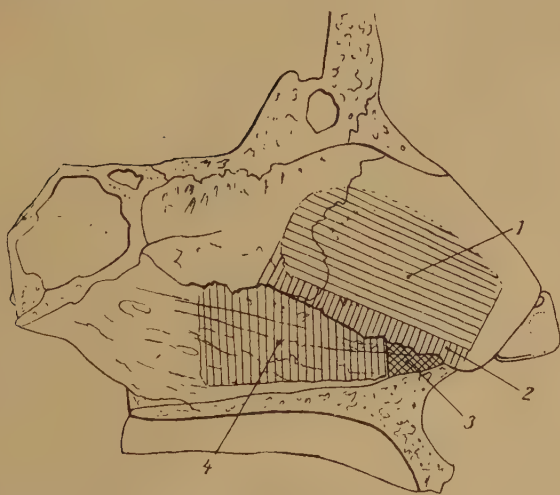


FIG. 2.

The instrumentarium for the operation has already assumed enormous proportions. Almost every operator has devised some instrument for which special advantages are claimed. In reality few instruments are required. The separation of the muco-perichondrium has received much attention. If the first incision has been made through the muco-perichondrium no difficulty will be experienced in separating it

from the cartilage. Great care, however, must be exercised in cutting through the cartilage, in order not to cut through the muco-perichondrium on the other side, otherwise a permanent perforation may be the result. After separating the cartilage from its coverings, which may be done with an ordinary grooved director, however, the Killian or Hajeck elevators facilitate matters. The cartilage can be removed in one piece by the swivel knife devised by Ballenger, which has been a great aid in the operation, as there is much time saved by its use. The removal of the bone is not so easy, but with suitable forceps, chisels and burs as little or as much as necessary can be removed without much trouble. The mucous coverings should be brought in position from time to time to see if sufficient bone and cartilage has been removed. The mucous coverings should be placed exactly in the median line. When enough bone and cartilage have been removed the cut surfaces of the muco-perichondrium should be placed in apposition and held in place by packing the nasal passages with gauze or sterile cotton. The majority of operators pack both nasal cavities with gauze in successive layers. This packing is so made that the muco-perichondrial surfaces are firmly pressed together. Freer packs only one side while Zamiko does not pack at all. The question of packing after nose operations deserves special consideration. A personal experience has led me to believe that there is possibly nothing as uncomfortable or as disagreeable as having both nasal passages packed for even twenty-four hours. But in this operation the packing is allowed to remain for forty-eight hours and even longer. When both nasal passages are packed not only is there great difficulty in swallowing experienced, but during each act the ear becomes inflated to such an extent that the pressure within the ear becomes almost unbearable. Frequently the soft palate becomes pressed against the post-pharyngeal wall and remains caught there, adding to the discomfort. Forty-eight hours spent with both nasal passages packed will not be remembered with much pleasure and I think if some of the operators who so strongly advise firmly packing both nasal passages had this tried on themselves there would be quite a change of opinion. The packing of only one nostril as advocated by Freer has the disadvantage that the septum being movable it is pushed over to the other side and comes in contact with the turbinate and as a result both sides are obstructed, besides there is danger of the septum and the turbinate becoming adherent. In order to overcome this I have in my recent cases introduced a long Ashe or Mayer nasal splint into the concave side and packed the convex side with gauze. This allows the patient one side to breath through. Should the side become occluded with blood or secretion I allow the patient to irrigate gently with normal salt solution. In this way the patient experiences no difficulty in swallowing and there

is no disagreeable pressure in the ear and the patient rests decidedly more comfortably. He does not lie awake for forty-eight hours waiting for the time to come when the packing can be removed, nor does he return to the office a physical wreck, as is often the case after both nasal passages have been packed for forty-eight hours. Not to pack at all as advocated by Zamiko would certainly be ideal, but how he can be sure that there may not be a serious hemorrhage, or at least a hemorrhage between the two muco-perichondrial surfaces as sometimes occurs even after both sides are packed, I fail to see. Yet he claims he has never had to pack the nose after this operation.

I have found that after removing the packing a reaction sometimes takes place and both nasal passages are apt to become occluded. This swelling may occlude the nostrils for several days. Recently I have observed that by having the patient wear two comfortably fitting Ashe nasal splints for two or three days the nose remains free and the patient is decidedly more comfortable. The patient can usually be dismissed after a week or ten days. This feature alone is a decided improvement over the crushing operation of Ashe and others. Another point is the certainty of the result. Only a single recurrence is reported by Freer. The case was that of a child in which not enough of the cartilage had been removed, so that when seen eighteen months later the cartilaginous part of the deflection was found to be one-half reformed. There was no reappearance of the bony obstruction. Menzel and Mueller emphasize the fact that not the entire cartilage should be removed from just beneath the bridge of the nose, but that a strip from one to one and a half centimeters should remain, owing to the danger of a sinking in of this portion of the nose. Freer believes that a ridge one-half centimeter in depth to be sufficient to insure against any sinking, providing the cartilage be smoothly cut and not torn out.

The principal advantages over other methods for correcting deformities of the septum are:

1. The certainty of the result.
2. The short duration of the after treatment.
3. More breathing space is obtained by this operation than by any other.
4. No second operation is ever necessary as is frequently the case when the crushing operation is employed.

AN AID TO THE TREATMENT OF EPIDIDYMITIS.

BY H. MCC. JOHNSON, M. D., St. Louis, Mo.

The greatest inconvenience that gonorrhœal epididymitis usually causes is due to suffering dependent upon pain and swelling, for it is very rare indeed that these cases suppurate. It is true that suppuration follows inflammation of the epididymis due to other etiological factors, being quite frequently seen when the condition supervenes upon inflammation of the bladder caused by pyogenic organisms.

For gonorrhœal cases, and even in orcho-epididymitis occurring during the course of mumps, if we relieve pain and quickly reduce swelling we accomplish the chief indications.

The treatment generally recommended for these conditions, such as rest in bed with elevation and more or less fixation of the testicles, combined with local applications of various kinds (lotions, poultices, ice, leeches, etc.), while very serviceable, often fails for some days to relieve the pain, and generally it is a week or more before the patient can return to his regular occupation.

The ordinary procedure is to strap the testicle with rubber adhesive plaster after the swelling has begun to subside, in order to allow the patient to be up and about, the straps being applied in a circular, then in a longitudinal direction. Most authors advise against strapping an acute epididymitis in the beginning of the attack. It has been urged that straps snugly applied in this way at the commencement of the acute stage threaten the integrity of the organ through strangulation; and so it may.

It has seemed to me that the action of the straps in completing the cure of a subsiding epididymitis was due to the retention of heat and moisture (poultice action), and if we could add rest in some manner, without constriction, the method would be applicable to acute cases in the very beginning.

About two years ago, meeting with a patient who had acute epididymitis, and who was obliged to continue at his work, it occurred to me to make use of the method described below; this gave such immediate relief that since that time it has been a regular procedure in my practice for treating this condition—and with most gratifying results.

The parts should first be shaved. With the patient lying upon the back one end of a strap of zinc oxide adhesive plaster, two and a half to three inches wide, is applied to the lower abdomen, from one and one-half to two inches from the median line. The strap, face upwards, is taken around and under the scrotum, elevating the testicles to a level at least as high as the peno-pubic angle and forming, as it were, a sling. The other end of the plaster passes up on the opposite side of the median line of the abdomen (Fig. 1). A second strap is applied in the same manner as the

first, overlapping the latter at its median border by about one inch. The straps are now neatly adjusted about the scrotum. A few short straps are gently passed crosswise over the anterior portion of the scrotum, just below the peno-scrotal angle, to completely cover in the testicles and have them enclosed by the plaster, and one crosswise above the penis to aid in holding the longitudinal straps in place (Fig. 2). It is intended to make no pressure whatever, and care should be taken that none is made. Both testicles are included in the bandage whether both, or one, are inflamed.



FIG. 1.

The bandage may be applied at any stage of the attack, but it is especially applicable in the beginning, often cutting short the swelling.

If the testicle should swell after this dressing is put on—which, thus far, has not happened in my cases—there is ample room towards the penis and perineum to allow of swelling without undue pressure, thus relieving any fear of strangulation.

The testicle is thus put in a splint, so to speak, and at the same time the plaster retains the heat and moisture.

Patients who come with an epididymis much swollen, saying that they can scarcely walk for the pain, after the application of the bandage, ex-

press themselves as much more comfortable. They go about in comfort, attending to their ordinary duties, provided the occupation is not one calling for unusual exercise. The swelling subsides rather rapidly so that within a week or ten days, the plaster may be removed and a suspensory bandage worn instead.

A case of acute epididymitis whom rest in bed, support of the testicles, and application of poultices failed to relieve pain, the patient requiring large doses of opium to keep him in any comfort, was made comfortable at once by the plaster bandage. A few weeks ago a patient on whom this



FIG. 2.

bandage had been applied and to whom it had given ease, fell into the hands of another physician three days later. The straps were removed and the patient told to use flaxseed poultices. His epididymis now began to swell again and pain returned when he at once came back for a reapplication of the adhesive straps, which again gave him relief. I have now employed this method in a number of cases.

If left undisturbed for too long the plaster will cause considerable irritation of the skin, but, as a rule, I find that it may remain a week or ten days without causing any inconvenience from that source. Fortunately

that is usually sufficient time to reduce the swelling so that the epididymis is no longer painful when an ordinary suspensory is worn.

In a few cases the patients objected to having the pubis shaved and I then applied the plaster over the hairs. This naturally causes considerable difficulty when the time comes for its removal. It may be done without much discomfort to the patient, however, if he will sit in a tub of hot water for a time and soak off the cloth of the plaster. The rubber part of it may then be removed with alcohol or gasoline. If gasoline is used care must be exercised to immediately remove the gasoline, as it is a strong irritant in this case.

The great advantage of this method of dressing the testicle is the speedy relief of pain and the patient's ability to be up and about to attend to his business, the latter being quite a feature with some people.

The bandage may be adopted for any inflammatory condition of the testicle as an aid to other treatment, but is especially applicable to acute gonorrhœal epididymitis.

ABSCESS OF THE LIVER.—SUCCESSFUL CASES IN POINT.

By WILLARD BARTLETT, A. M., M. D., St. Louis, Mo.

Case No. 1.—Mr. B., age 31, white, born in New York, a barber by trade, came to St. Anthony's Hospital on the first day of January, 1906. He had the appearance of being a haggard, weak, sick man. He could not sit up quite straight, nor walk without agony, and it was evident, on first sight, that the man was suffering from a painful abdominal disease.

In view of later developments he gave a history which was interesting to say the least. He said he was never sick at all, until nine weeks ago, and, until that time, had worked constantly at his trade. Nine weeks ago he commenced to have a steady burning pain in the region of the stomach, which has never left him. This has not been alleviated by any kind of medicine, or applications, and since its commencement he has lost twenty-seven pounds in weight. He has had some fever, but no chills. "*Has never suffered from diarrhoea, or been out of this climate.*" His appetite has gradually failed, and for the last three weeks he has had none at all. Still food does not distress him, nor has he vomited a single time. He is exceedingly constipated, and says that he must have some sort of relief, as the distress in the upper portion of his abdomen is gradually driving him to distraction.

Physical.—In the epigastric region, lying slightly to the left of the middle, there is projected onto the anterior wall, an elevation, which corresponds, approximately in size and shape to the outline of the normal stomach. This is so characteristic in appearance, that the first impression on seeing the patient is likely to be one of a new growth filtrating the anterior

wall of the stomach. This mass is exquisitely sensitive, so much so, that the patient can not bear any adequate physical examination. As stated before he cannot stand erect, nor lie on his back, but remains curled up in bed with the knees drawn well up, in order to take tension off of his anterior abdominal wall. His temperature and pulse are slightly elevated.

Operation. Jan. 2, 1906. A median laparotomy was made, and the mass, above referred to, was at once seen to be an immensely enlarged left lobe of the liver. In fact, this is so increased in size that it practically fills out the lower abdomen. In front nothing but ordinary looking liver tissue is seen, but the posterior surface of the left lobe reveals an intensely interesting condition. Here no liver tissue is seen, simply the thickened capsule of Glisson is spread out over a fluctuating sac, which apparently constitutes a large portion of the diseased member. There are fibrinous adhesions between the stomach and this altered posterior surface of the liver, while in the peritoneal cavity, a small amount of thin serous fluid is encountered. It is very clear that a large collection of fluid has to be liberated, and the problem which confronts me is, "How this should be best done by the most direct route, without allowing any of it to escape into the general cavity." Obviously, it would be bad surgery to cut through the thin posterior wall, even though the collection lay more superficially here. What I did was to place two heavy stay-sutures of catgut about an inch apart in the liver tissue in front. By exerting traction on this, I could bring the organ tightly against the anterior wall and puncture between them with a trocar. This revealed thick, yellow pus, which was thus drained off, as long as it flowed spontaneously. Then with the actual cautery, I opened the cavity widely, and allowed what seemed to be about half a gallon of the fluid to escape. Two heavy rubber tubes were inserted and gauze superficially packed around them, to stop hemorrhage of the liver tissue. Gauze strips were carefully packed for a little distance between the abdominal wall and the anterior surface of the organ, in order to cause dense adhesions. The stay-sutures, above referred to, were tied to the edges of the abdominal incision, and three or four clamps left hanging to the liver tissue, in order to make doubly sure that the organ would not sag away from the anterior wall, and pour its contents out into the peritoneal cavity.

The next day the patient was normal in every particular and comfortable. On the fourth day the clamps were taken off the liver tissue. On the sixth day, the gauze packing was removed. On the eleventh day, the tubes were taken out, and the patient sat up. By the nineteenth day, the discharge had grown exceedingly slight, and he was gaining rapidly in strength and weight. On this day he went down town and back on the street car. On the twenty-fourth day, the patient went home perfectly well, except for the fact that there was a very slight serous discharge

which stopped in a few days more, and he is now working hard at his trade, strong and healthy, as he ever was in his life.

Case No. 2.—Mr. B., 20 years of age, a German and a sailor by occupation, entered St. Anthony's Hospital, March 23, 1906. He had been a sailor in the United States Navy, stationed in the Philippine Islands for some years. In August, 1905, he suffered from dysentery and was very sick. The September following he commenced to have pain high up in the right side of the abdomen. This continually grew worse and was attended by chills, fever and sweating. Later on the region of the liver commenced to swell, and the patient began to lose in weight. He is now about twenty pounds lighter than he was when the malady commenced. The white blood cells are increased, and the hæmoglobin is greatly diminished. He has been in bed almost three months and has the appearance of a very weak, sick young man.

Physical. There is a distinct bulging of the right upper abdomen and lower chest. A dull area, with a dome-like apex, reaches upward to the fourth rib. This whole region is sensitive to pressure, and nothing is revealed by explorative puncture.

Operation. March 24, 1906. The eight and ninth ribs were resected in the mid-axillary line, and within the chest fibrinous adhesions found between the diaphragm and lung. These were sufficient to prevent the lung collapsing to any great extent. The plura of the diaphragm was sutured to that of the chest wall, while around the opening a guaze pack, soaked in 50 per cent. chloride of zinc, was tied in place, in order to cause dense adhesions. One week later, on March 31, an opening was made through the diaphragm, and its under surface found firmly adherent to the liver. By inserting a long trocar in several different directions, I finally located a large abscess in the upper posterior portion of the right lobe. Following the course of the trocar, I tore a large opening with the forceps and immediately liberated, what seemed to be, about half a gallon bile-stained pus. Three drainage tubes were introduced and gauze packed around them. As soon as the patient awoke from the anesthetic, he expressed himself as being greatly relieved. His temperature, which reached 104 the night before the operation, has not been up to 100 since. A week later the gauze was removed. Nine days after the operation, his appetite was splendid, he was gaining rapidly in weight, but there was still a considerable amount of pus. At the end of two weeks, he was sitting up, and the discharge rapidly growing less. Within the next week he was walking around the hospital and down in the yard, looking like a different man from the emaciated invalid, who entered the hospital less than four weeks before.

The two cases just narrated, illustrate many features of this disease, which are directly in contrast to one another. The first patient presented

none of the points which one might expect in the history and the physical examination of a man so afflicted. He had never been out of our climate, never had diarrhœa, and insofar differed, decidedly, from patient No. 2, who had served with the United States force in the Philippine Islands, and suffered from tropical dysentery. Under the latter circumstances, the diagnosis was naturally easy.

With these two contrasting histories, the findings in both cases were decidedly similar. In each instances there was a large *solitary* abscess, the only difference in the two being that the lesion was situated in the left lobe in one case, while it was in the right lobe in the other.

I shall briefly quote a third case merely to show what can be accomplished in the surgery of this disease.

In the summer of 1904, a boy, ten years of age, entered St. Anthony's Hospital, with a history of several months' sickness, which had been treated as typhoid fever. He was pale, emaciated, had no appetite, and could scarcely speak above a whisper on account of weakness. The entire upper abdomen was symmetrically distended, so much so, that the excursions of the diaphragm were considerably embarrassed. He was so sensitive and so nervous, that an adequate examination could not be made, but it was very easy to determine that a newly formed mass, of some sort, occupied almost the entire upper abdomen. The abdomen was opened high up in the middle line, and, an immensely enlarged left lobe of the liver presented itself. This was treated just as in the first instance, exploratory puncture showing the presence of bile-stained pus. Drainage resulted in the boy's rapid improvement, and in a few weeks he was at home, perfectly well, and is now, as fine a specimen of American boyhood as can be seen anywhere.

These three histories are recited chiefly to show what can be accomplished by surgery in this disease. I have had only these three cases, hence, the mortality for this very small number, must be placed at 100 per cent. Of course, I realize that in a larger number of cases 100 per cent. recovery is not to be expected, still, it is encouraging to say the least, that these three, who were extremely sick people when they entered the hospital, recovered so promptly when the gravity of the lesion is taken into account.

EDITORIAL.

ON CERTAIN TENDENCIES.

One of the developments of modern civilization is a well-defined trend toward the organization of human activity into bodies that are representative of certain industries. These bodies strive for the common welfare of their component parts as a whole, not as individuals. All departments of labor are organized, likewise are the operators protected as individuals by their associations as a whole, for the common good. We have no desire to become engrossed at this time in the fascinating study of the objects and means to the end of these organizations, we only wish to mention certain questions that immediately strike our fancy in considering some of the tendencies now evident as objects of an organized medical profession. Shall we soon carry with our prescription blank a "registered union card?" Shall we be called upon to "strike" work for sympathy of some allied interest,—let us say The Pharmaceutical Association? Shall a "walking delegate" dictate to us as individuals for the welfare of the whole? These are absurd questions no doubt. We feel that to recite them indicates flippancy; however, much as we are inclined to laugh, the serious aspect of these suggestions straightway banishes our rising humor.

The organization of the medical profession for the purpose of demanding the making and enforcing of just laws so far as these laws are necessary to public health is right. We most heartily agree in this also—that the medical profession should also be organized as a whole in order to accomplish reforms of a broad humanitarian nature. Again it should be brought together for the sake of its component parts, that the individual may be encouraged, educated, and justified. These are the purposes of medical organization to our mind, and surely there are cogent reasons for such organization. Let us now consider what evil may befall an organization planned for noble designs. The medical community may be called upon to stand together because of some "gross and unnecessary" injustice to its commercial side. The regulation of fees paid by certain commercial institutions for contract medical work may demand concerted action. Now we observe the striking similarity that may be assumed by certain of our organizers to trade labor union methods. Could the medical profession be placed more securely "on the level of miners and bricklayers" than by unanimous action on a commercial question, i. e., the five dollar or three dollar fee (wage scale)? Let us not produce the impression that to our mind there is necessarily an individual superiority of the medical unit over any other unit. But we believe sincerely that the practice of medicine should not be a commerce. We believe that the use

of our medical community for commercial ends will do more to place the profession as a whole on the level of "miners and bricklayers" than the action of any individual corporation toward its medical employees.

DEPARTMENT OF MEDICAL LAW AND JURISPRUDENCE.

We desire to announce the addition to the JOURNAL, beginning with the June issue, of a department devoted to medical law and jurisprudence. Medicine and law, in their practical operations at least, are the most closely allied of the great professions—in many instances inextricably blended. The principles and practice of the different branches of medicine are every day invoked to the elucidation of doubtful questions in courts of law. The physician is called upon as the expert to testify in the judicial tribunal in cases affecting life, reputation and property. He is required to apply the principles of his profession in aid of judicial procedure and bring to the court such assistance as the case may demand for the discovery of truth.

On the other hand there are fundamental principles of law which govern the physician in his relations with other members of society. He holds himself out to the world as skilled in the practice of a profession which involves essentially a relation of confidence and trust and which in consequence falls peculiarly within the regulating power of the law. The law zealously guards both life and limb—and the State is primarily concerned in matters of health.

The importance to the physician of an understanding of the first principles, at least, of medical law and jurisprudence becomes at once apparent. There will be no attempt to offer here anything more than a discussion and development of fundamental principles from time to time as they may be suggested by newly adjudicated cases. Nothing in the nature of exhaustive definitions of the many and varied legal rights and duties of the physician will be ventured—yet certain practical considerations may be presented likely to prove of value to the physician in his professional relations.

COMMENT.

THE MUMMY IN MEDICINE.

A glimpse into the past is often a fruitful source of instruction and not barren of results in broadening our ideas of what others have done and what we ourselves may be capable of doing.

Looking into the dim light breaking through the darkness surrounding the practice of medicine in its earliest known form we see a few of earnest, thoughtful, and unselfish men who devoted their lives to the alleviation of the sufferings of their fellow-beings, drawing their remedies from whatever source their limited knowledge of the human body and their meagre means for investigation permitted them to reasonably conclude that what they prescribed would contribute to the restoration of health. It is beyond belief that of the many curious things used by the ancients in the treatment of disease there could have been any remote curative effect from mummy, swallow's nests, ants' eggs, etc., in fact quite the contrary undoubtedly often resulted. We must, therefore, attribute many recoveries from illnesses to the self-limiting action of the disease and probably to a suggestive influence unconsciously exercised by the physician in many cases. A short description of preparation of mummy and some of its uses in medicine may prove interesting to our readers. For much of this information we are indebted to a paper written by H. W. Mengedoht, an Egyptologist, and published in *The Physician and Surgeon*, (London.)

Mummy was an important factor in the medicine of mediaeval times. The use of mummy possibly had its origin in the days of hoary antiquity. It was not an uncommon practice for certain persons to eat portions of the bodies of deceased relatives, in the belief that they thus gained for themselves the powers or qualities the persons had possessed. The discoveries of Professor Petrie in Egypt seem to point to some such practice being in use among the aborigines in Egypt. He found in the rock-hewn tombs a large number of skeletons from which the flesh had been removed prior to burial which Mr. Petrie claimed as proof that the early Egyptians ate parts of their dead in order to keep their virtues among themselves. These skeletons date back to a very remote period, possibly 2,000 years before the time of Abraham, and long before that of the famous pyramid builders, Khufu (Cheops) and Mykerinos.

The first use of mummy in medicine is said to have been practiced by a Jewish physician who proclaimed that flesh thus embalmed was good for divers diseases and particularly bruises, preventing the blood coagulating. Bacon also seems to have held such opinion when he wrote "Mummy hath great force in staunching blood, which may be ascribed to the mixture of balms that are glutinous."

In the middle ages preparations made of mummy were largely in use; the following are the names of a few of these: *Mumia artificialis*; tincture of mummy; elixir of mummy; extract of mummy, *arcenum* of mummy.

Elixir of mummy was prepared by macerating in turpentine for forty days, after which it was to be put into a bladder and digested in an alembic and sublimed. This elixir was supposed to cure the plague. Balsam of mummy was prepared by digesting for twenty-one days in olive oil. The oil was sweet scented and red in color. These preparations were used in cases of consumption, hectic, ulcers, and corruptions, while arcanum was supposed to be efficacious in wounds, pestilence and poisons.

Mummy could be readily purchased at apothecaries; this is evident from the passage in *Shirley's Bird in a Cage*, "Make mummy of my flesh and sell me to the apothecaries." The London Pharmacopœia, in a long list of curious remedies mentions swallows' nests, ants' eggs, gelatine of fishes, exuviae of the frog, and "tarred mummy" as recognized medicants.

The use of mummy in medicine appears to have died hard for there are traces of it having been used to the end of the eighteenth century. As the use of mummy grew, the demand for it caused a regular trade to grow up for this article. The supply often did not meet the demand and this resulted in the use of fraudulent mummies which were ground up and sold for the genuine article. These forgeries were made from the bodies of persons hanged or who had died of some loathsome disease, by placing them in hot sand. It is said that all mummy sold in the shops, whether brought from Venice or Lyons, or even direct from the Levant by Alexandria, were fictitious, the genuine mummy being counterfeited by drying carcasses in ovens after having prepared them with powdered myrrh, caballine, aloes, and other coarse and unwholesome drugs.

The trade in mummy was somewhat interfered with in a curious manner. A man of Damietta, who traded in mummy, had a servant whom he treated very badly. Unable to bear this treatment any longer, the servant betook himself to the authorities and, out of revenge, told what his master's business was, which at that time, had been pronounced illegal. The authorities, acting on the information received, came down upon the man and confiscated his whole stock of more or less fraudulent mummies. The result of their investigation led to the finding of other mummy stores which were also closed. Mummy, nevertheless, for many years remained on the market here and there, and it was not until the close of the eighteenth century that it finally disappeared from the Pharmacopœias of the world.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

CONCERNING THE CO-RELATION OF HEART AND GASTRO-INTESTINAL DISEASES.—Schmidt (*Berliner Klinische Wochenschrift*, No. 14, 1906.) discusses the relationship between gastro-intestinal and heart diseases, and shows how affections of the one may often be taken for those of the other. It is quite natural that gastro-intestinal disturbances should arise in diseases of the heart because of the stagnation in the portal system. Much of the gas produced in the intestines and introduced into the intestines with food, is absorbed and taken up into the circulation. In the event of a venous hyperemia, therefore, the absorption of gases does not go on properly and marked distention with all of its unpleasant features occur. Frequently, therefore, gastro-intestinal symptoms and cardiac disturbances are more prominent than are the primary cardiac symptoms. On the other hand, cardiac symptoms are often produced through the disturbances of the gastro-intestinal tract. These symptoms may be divided into three classes: (1) Tachycardia and allorhythmia. (2) Angina pectoris. (3) So-called asthma dyspepticum. The first class of cases occur after mistakes in diet in persons who have chronic dyspeptic troubles and manifest themselves with rapid, arrhythmic pulse and palpitation of the heart. The second class of cases occur periodically, usually after the ingestion of food but often upon an empty stomach, and are characterized by a feeling of pressure, anxiety, paleness, small frequent irregular pulse, palpitation of the heart, dyspnoea and other peculiar sensations. The digestive symptoms may remain entirely in the background.

The third group is characterized by dyspnoea of a subjective type. It resembles more the attacks of cardiac asthma than those of bronchial asthma. The affection is purely of reflex origin. The author closes this valuable article with a few words on the diagnosis, prognosis and therapy of these affections.

THE GENERAL CONSIDERATION OF THE THERAPEUTIC USES OF DIET.—Hutchinson (*The Practitioner*, April, 1906,) calls attention to the loose way in which dietetic means are employed as compared with the relative exactitude and consistency with which drugs are prescribed, and says that this is due in no small measure to the lack of proper system in instruction in dietetics in our schools. In this article he endeavors to sketch very briefly the general uses and limitations of dietetics in the cure of disease, and in the conclusion of the article he lays down some general rules which may well be borne in mind. (1) When prescribing a diet for a case of local disease, one must take care not to sacrifice the whole

to the part. (2) No article of food should be forbidden unless one has good reason for doing so. (3) In acute diseases one should recommend, in chronic forbid. (4) Before recommending any article, find out whether the patient likes it and whether it agrees with him. (5) If an article disagrees it is better to reduce its amount in the diet than to cut it off altogether. (6) General changes in diet should be proposed and made gradually. The author calls attention to the comparative immunity of the carnivora to tuberculosis and to the success which has attended a raw meat diet, and while he does not maintain that the subject is definitely settled, he suggests that it is well worthy of consideration. If we would escape the charges of inconsistency and arbitrariness apt to be brought upon us with some justice when we come to the dietetic part of our plans of treatment, we should never make a change in a patient's customary diet unless we have definite grounds for so doing.

DIET IN RENAL DISEASE.—Bradford reviews tersely the dietetic indications in renal disease. In acute and chronic renal disease where such complications as dropsy and uremic symptoms are present, the dietetic treatment must be based on restricting the work of the kidney to as great an extent as possible. In cases of true acute nephritis with suppression of urine the diet should be reduced to the greatest extent possible, and in some cases should be withheld entirely. In chronic renal disease with dropsy and uremia, the dietetic treatment must be somewhat similar to that applicable to cases of acute nephritis, but the restrictions cannot be carried out to the same length as those suitable to the treatment of an acute malady. Where uremic symptoms and anasarca are present, nitrogenous foods must be diminished as much as possible. He believes that the improvement under a milk diet in chronic renal disease is often more spurious than real. While the quantity of urine is increased and the albuminuria diminished, in reality there has been simply a diuretic action of the milk which has increased the flow of urine and consequently a relative diminution of albumin. In granular kidney, restriction both in amount and character is necessary. The absence of clinical symptoms in these cases leads the patients to be rather imprudent in their habits, and they must for this reason be especially carefully watched. Comparatively little meat should be eaten by nephritic patients, but it matters little as to whether this is dark meat or white meat. The chief point to bear in mind in the selection of proteid food should be rather its digestibility than any theoretical considerations as to the relative superiority. Stimulants are harmful in all forms of renal disease and are best avoided.

THE RESULTS OF OPERATION FOR PERFORATION OF ULCER OF THE STOMACH.—Goldschtaecker (*Centralblatt f. Grenzgebiete Med. u. Chir.*, Nos. 3, 4 and 5, 1906,) reviews in detail the results of surgery in perforation in ulcer of the stomach, presenting about 300 literature references leading up to the present date. Inasmuch as this subject is one of special importance to the internist, we deem it well to call attention to it here. It would be utterly impossible to call attention to all the points brought forth in this exhaustive article, but allusion may be made to a few of the conclusions reached, especially in reference to diagnosis. Perforation of

ulcer of the stomach occurs more often among women than men, and the women thus affected are younger than the men. The previous history is exceedingly important in arriving at a diagnosis because in most cases the history of a long-standing affection of the stomach may be elicited. For sudden perforation there is no absolutely certain sign, however, sudden, severe pain localized in the gastric region should always direct one's attention to the possibility of the existence of this condition. Localized peritoneal friction sounds in the gastric region are always important. Early vomiting occurs in the majority of cases; the abdominal walls are exceedingly hard; the disappearance of the liver dullness has only slight value, as a thorough diagnostic sign of gastric perforation it is greatly overestimated. If possible, cases should be operated upon within the first twelve hours, since the chances for recovery after this are greatly diminished. The results of operation within the last few years have been materially better. Of course where possible the patient should be operated upon in the hospital rather than at home. About 50 per cent of the cases are cured through operation.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF
CARL FISCH, M. D.

Experimental studies about the action of 'Preparations made from Tubercle Bacilli on the Tuberculous Organism.—A. Wassermann and C. Bruck (*Deutsch Med. Woch.*, 1906, No. 12).—The very important investigations of Wassermann and Bruck unfortunately must be dealt with here in an unsatisfactory manner, as for a full understanding a great amount of explanation on very complex serum reactions would be necessary which would exceed the space of a review. It must be sufficient to say that they introduced into the study of the specific reactions of tuberculous individuals a method first suggested by Bordet and Gengou and later worked out by Moreschi and Neisser and Sachs, which permits, as Wassermann has shown, by binding of complement, the demonstration of the presence of even minimal quantities of bacterial substances and of their antigenes. The method promised to give valuable aid in the solution of many problems on the subject of infectious diseases. The authors have succeeded in arriving at an explanation for the heretofore mysterious reaction caused by tuberculin in infected individuals; not only this, but also an explanation for the nature of the therapeutic effect of preparations made from tubercle bacilli. By their method they were able to demonstrate the presence of anti-tuberculin in the tuberculous focus, which only with the dissemination of it appears in the blood. The localization in the limited primary lesion acts as it were chemotactially on the most minimal quantities of the substance through which it is produced when introduced into the organism. This process leads to active autolytic phenomena in the tuberculous focus to caseation and resorption. This specific reactive capacity becomes less with the extending of the lesions. The antituberculin then is found in the body fluids and neutralizes within them any tuberculous substance introduced from without. The focal

reaction is thus eliminated and the infection progresses. It is impossible to enter into the detailed steps and investigations that led to these conclusions. What their practical consequences will be, the future will show. That the facts given are correct and correspond to many well observed clinical experiences is clear. Practically the work has so far proved its firm foundation by the discovery that by its method the often fraudulently applied tuberculin injection shortly before the official examination of cattle can be demonstrated in the presence of antituberculin in their blood. Cattle show this substance in their blood with much earlier tuberculosis lesions than those with which, in the blood in human patients, it is to be found.

WITHOUT MOSQUITOES THERE IS NO YELLOW FEVER.—Carroll (*Am. Med.*, Mch. 17, 1906).—It is an anachronism that this article, written by a man who stands in the front line of the men who have shown us how easy it is to eliminate yellow fever from our continent, could be necessary or deemed advisable. It is classic in its style and superiority and may be considered as the final death sentence to that form of yellow-fever literature that was so rife during the time of the late New Orleans epidemic. That the article had to be written throws a gloomy light on the small degree of receptivity shown by our country. We may be thankful to Carroll that his objective representation must withdraw even the courage to make an attempt at contradiction. There is no doubt that as yet many problems in the yellow-fever question are not solved, but they will be solved with absolute certainty only on the basis of facts which Carroll's whole article set forth so clearly and impartially. The little paper ought to be widely read and considered.

THE HEREDITARY TRANSMISSION OF THE YELLOW FEVER VIRUS IN *STEGOMYIA FASCIATA*.—Marchoux and Simond (*Compt. rend. Soc. biol.*, Aug. 4, 1905. *Ann. de l'Inst. Pasteur*, vol. 20, No. 2, 1906.)

Report of Working Party No. 3.—Rosenau and Goldberger (*Yellow Fever Institute Bull.*, No. 15).

That the basis of the facts represented by Carroll, as explained in the above review, is the one that bids fair to solve yellow fever questions so far unanswered is lately confirmed by the work of Marchoux and Simond. Before them our American Commission, impelled by similar observations on spirochaeta, piroplasma and some other protozoic infections, attempted to solve for the yellow fever organism the question whether in it, too, the transmission of the virus from the mother mosquito to her eggs could be established, thus accounting for the sometimes abrupt and disconnected appearance of the disease in certain localities where no fresh cases had existed or were imported. The explanation so far had been either the persistence of the virus in the blood of a last year's patient (an assumption very unlikely to be true in view of what we know of the parasite and its presence in the infected organism), or the hibernation of infected mosquitoes, which under favorable conditions is possible, an analogon of which seems to exist in the mosquitoes carrying the plasmodium vivax (after Schandinn). The experiments made

were without success. The animals arising from the eggs of infected mosquitoes did not give rise to the disease by their bites.

Marchoux and Simond took up the question again and had a positive result in one case in Brazil. A female mosquito raised in the laboratory was allowed to feed on two yellow fever patients at an interval of two weeks. One batch of eggs was laid before the second feeding and another one three days after the second. The latter batch was raised and represented the perfect imago-stage in fourteen days. After two more weeks two females were allowed to bite a Portuguese who had only a few days before arrived from Europe and had never been in contact with yellow fever. He showed no reaction for eight days. On the eighth day after the first bite one of the two mosquitoes was made to bite him again. Four days later the man showed the typical picture of an attack of yellow fever. It is not necessary to mention that the experiment was carried out with the identical methods used by Reed, Carroll and Lazear. During the New Orleans epidemic Rosenau and Goldberger repeated the experiments of the French Commission. By the same method 13 non-immunes were exposed to the bites of mosquitoes raised from eggs of infected mosquitoes. In none of these attempts was success achieved. Why this is so is hard to explain. If we look for conditions in analogous cases we find that for instance Koch in the examination of the eggs laid by ticks carrying the spirochaete of tick-fever, saw that by no means all of them contained the microbe, but that always only a certain percentage were infected. In some cases none of the eggs showed the parasite. Similar conditions may obtain for the yellow fever. The positive result obtained by the French Commission is not made doubtful by the negative findings of Rosenau. It will be the stimulus for further, more extensive investigations which most likely will establish the extent to which from this source a dissemination of the disease is likely to occur.

TROPICAL SPLENOMEGALY.—Musgrave, Wherry, Woolley (*Johns Hopkins Hosp. Bull.*, 1906, No. 178).—The paper describes the clinical history, blood findings, study of material obtained from the spleen and autopsy records of a number of cases of tropical splenomegaly occurring under their observation in the Philippines. In all respects these cases corresponded entirely to the picture of the widely distributed tropical disease known as dundum fever, kala azar, and by other names. It is interesting to note that with this form of splenomegaly typical other forms of enlargement of the spleen are found in the same locality, as for instance, cases of Bantis' disease. As is well known, kala azar, since Leishman's discovery, has become the prototype of a protozoic infection, due to formations found in the infected person called Leishman's bodies, and later recognized as a stage in the life cycle of a protozoon nearly related to the trypanosomes. The uniformity of the clinical picture of the splenomegalia characteristic of the tropical areas naturally led to the belief that their etiology was the same everywhere. The disease as observed by the authors in the Philippines, clinically identical with kala azar, must be different etiologically; the authors in spite of the most

careful investigation, never succeeded in demonstrating in any one of their cases, Leishmann's bodies nor anything resembling them. With the comparative ease with which these bodies are found and characterized in cases where they are present, the assertions of the authors appear definite and positive, that clinical resemblance in some conditions does not mean the same causative factor.

DIAGNOSIS.

IN CHARGE OF
ALBERT E. TAUSSIG, M. D.

TYPHOID FEVER IN V. JAKSCH'S CLINIC.—Skutczky (*Zeitschr. f. Heilk.*, 1906, No. 2).—During the years 1889 to 1903 there were treated at v. Jaksch's clinic, in Prag, some 793 cases of typhoid fever, with a mortality of 12.5 per cent. The best results as regards early diagnosis were obtained by means of splenic punctures. The enlarged spleen was punctured, with scrupulous asepsis, a few drops of splenic blood withdrawn and sown upon nutrient media. By this means typhoid bacilli can be grown from the patient's blood very early in the disease. The procedure, if certain contraindications be observed, is practically free from danger. As regards the Widal test, v. Jaksch prefers Ficker's modification to the use of living cultures. Since 1901 all typhoid patients were subjected to an exclusive hydro-therapeutic regimen. As soon as the axillary temperature reached 39 degrees C. (102 degrees F.) a lukewarm bath of a temperature of 30 degrees C. (86 degrees F.) and lasting 10-15 minutes, is given. This may be repeated 2-4 times daily. Liquid diet until the seventh fever-free day; no alcohol. The urine is kept sterile until far into the stage of convalescence by means of the administration of urotropin.

PERCUSSION IN PLEURITIC EFFUSIONS.—G. Kroenig, (*Berl. klin. Wochenschr.*, 1906, No. 13).—In nearly 1000 cases of pleurisy with effusion, the writer has found that the upper margin of the fluid, posteriorly, as outlined by percussion, is not a horizontal line, but a curved one with its convexity upwards. The highest point of the area of dullness, posteriorly, lies in a line with the inner margin of the scapula, or even still farther out towards the axillary line. As it approaches the spinal column the upper margin of the area of dullness curves downwards, thus including between itself and the spinal column an area in which the percussion note is tympanitic, the respiratory murmur is bronchial and the vocal fremitus increased. This is directly opposed to the statements of nearly all of the text-books who agree that the highest point of the dullness lies along the vertebral column. The writer believes that the above described peculiarity of pleuritic effusions may help to distinguish them from pneumonic consolidations.

In a discussion of the above article, O. Rosenbach (*Berl. klin. Wochenschr.*, No. 15) points out that as long ago as 1878 an American, Garland, called attention to this same phenomenon, whence the tympanitic

area between the exudative dullness and the spinal column has received the name of Garland's Triangle. Kroenig's findings are thus not new, though it was perhaps worth while for him to call attention to a phenomenon so generally over-looked.

THE QUANTITATIVE DETERMINATION OF HYDROCHLORIC ACID IN GASTRIC JUICE ACCORDING TO PETTERUTI'S METHOD.—S. Barba (*Rif. Med.* XXI., No. 49; Ref. in *J'l. A. M. A.*, 1906, No. 15) has been experimenting with the test devised by Petteruti of Naples. It is based on the fact that Congo-red paper is not affected by hydrochloric acid in combination with albumin, while it turns blue under the influence of even a trace of free hydrochloric acid. The yolks of two eggs are stirred into 300 c.c. of bouillon and the whole filtered. About 250 c.c. are then ingested by the person to be tested, and the rest of the bouillon is set aside. An hour later some of the ingested bouillon is withdrawn with the stomach tube. A 2 per thousand solution of hydrochloric acid is then added, a drop at a time, to 5 c.c. of the bouillon that had been set aside, testing each time to see how many drops are necessary to saturate the bouillon until the Congo-red reaction occurs. The procedure is then repeated with 5 c.c. of the stomach content. The difference between the results, multiplied by 50, represents the number of cubic centimeters of the solution of hydrochloric acid containing an amount of hydrochloric acid equivalent to that secreted in the stomach in the course of one hour. Experiments on healthy persons with this test showed that this amount was from 0.2 to 0.5 gm. Multiplying by 4 to bring the 250 c.c. to 1,000 c.c., the physiologic limits were 0.8 and 2 gm. The test was applied on 11 patients with stomach troubles and the results confirmed the clinical findings. The simplicity and rapidity of the test commend it, although it shares with similar tests the drawback that the secretion of gastric juice varies with different stimuli and with different people.

THERAPEUTICS.

IN CHARGE OF

WALTER BAUMGARTEN, M. D.

DUPUYTREN'S CONTRACTION TREATED WITH INJECTIONS OF THIOSINAMIN.—Teschemacher (*Therap. Monatsch.*, Jan., 1906,) reports the results of treatment with subcutaneous injections of thiosinamin of Dupuytren's contraction in four cases of diabetes. In two cases the result was perfect, in one no improvement occurred, and in a fourth the patient declined to submit to a sufficient number of injections. The solution used consisted of:

Thiosinamin	2.0
Glycerin	4.0
Aq. dest.	14.0

of which a syringeful was injected daily. In addition to this the scar-tissue was massaged systematically, treated by hot baths, and anointed daily with vaseline.

In the first case the injections were made in the forearm, on the involved side. Twenty-five injections were made before any softening of the bands of contraction could be observed. At the end of fifty injections, however, all signs of scar-tissue had disappeared and the extension of the fingers was perfect, and remained so. No abscess occurred in the course of this series of injections, nor was much pain produced.

The second case proved to be very sensitive to the drug, the injection of which was always followed for an hour by severe pain, and on one occasion by an abscess. Subsequently the injections were made into the gluteal region with less disagreeable results. After an interruption in the treatment, "fibrolysin" (Merck), a modification of thiosinamin, was substituted for the thiosinamin previously used. This, injected into the gluteæ, caused neither abscess formation nor pain. Slight improvement was noted after fifteen injections of thiosinamin, but very marked change, both in mobility of the finger and in softening of the scar, occurred after twelve injections of fibrolysin. A complete cure was established after nineteen injections.

THE ACTION OF THIOSINAMIN IN TRAUMATIC STRICTURES.—Mohr (*Therap. Monatsh.*, Janu., 1906,) reports a case of stricture of the left parotid duct following a lacerated wound of the left cheek, which extended from the outer canthus of the eye to the angle of the jaw. This was relieved by operation, but repeatedly closed up in spite of systematic dilatation with sounds. Subcutaneous injections of thiosinamin were then begun in connection with the dilatations. A ten per cent aqueous solution with twenty per cent. of glycerin was employed, of which one cc. at a dose was injected in distant parts of the body. Eleven injections were made in the course of four weeks. Five injections of $\frac{1}{4}$ cc., of the solution were also made in the immediate neighborhood of the stricture. In the third week the stricture became less firm, and at the end of the fourth week it had yielded to such an extent that no retention of fluid occurred, although dilatation had been discontinued. No recurrence had taken place two and one-half months later.

Mohr considers thiosinamin as a valuable adjunct to mechanical or operative measures for the relief of stricture in that it in time materially softens the scar-tissue, often makes effective otherwise unsuccessful treatment, undoubtedly hastens recovery and tends to prevent recurrences.

THE TREATMENT OF TUBERCULOUS PLEURISY WITH EFFUSION.—Potter (*Lancet-Clinic*, March 24, 1906,) seeks to emphasize the fact that while tuberculous pleurisies with effusion, in which the tuberculous infection is confined to the pleura, are most promptly and efficiently cured by aspiration. Pleurisies with effusion which are incident to an evident involvement of the lung cannot be so treated as a matter of routine. Effusions complicating lung infections tend to put the lung at rest and are frequently accompanied by improvement rather than retrogression in the patient's condition. The sudden withdrawal of fluid in such cases results in an increased blood supply to the previously compressed lung and a renewed distension and functional activity which is frequently followed by increased irritation, extension of the disease, cough, and hemorrhage, with a progressive loss of ground by the patient.

TREATMENT OF MENINGOCOCCUS MENINGITIS.—Dow (*Med. Record*, March 31, 1906,) recapitulates the method of treatment of meningococcus meningitis in the first medical division of Bellevue Hospital, New York. "The meningococcus excites for about two weeks an intense structural and functional over-activity, with sometimes a resulting increased cerebro-spinal pressure, and with sometimes various degenerations." The intense cellular activity may be advantageously met with very small quantities of morphine given hypodermically. For the same purpose, a fairly warm and constant room temperature assures a vigorous cutaneous circulation which tends to reduce the quantity of blood that reaches the brain. The same result may be more effectively reached when the necessity is urgent, by warm baths, which tend to relax the muscular apparatus and to dilate the cutaneous vessels. Moderate elevation of head and shoulders has been found to rapidly dissipate the active symptoms, presumably by the relief of cerebral congestion. The best angle of elevation must be determined by experiment, after which it should be increased as convalescence begins. Lumbar puncture is useful in the first few days, or at the beginning of a relapse and acts by relieving cerebro-spinal pressure so that absorption from the serous membranes can again take place, similarly as in pleurisy with effusion.

Measures directed toward maintenance of the general strength should consist in a generous, though simple diet, forced feeding, if necessary, an abundance of fluid, the careful avoidance of constipation. Thorough ventilation has a marked effect on the improvement, and in warm weather it has been the custom to keep meningitis patients constantly out of doors.

The writer protests vigorously against the use of stimulants as they simply increase the pathological circulatory condition in the brain. When the heart's action becomes weak and the extremities cold, digitalis in small doses should be given, but the administration of strychnin, adrenalin chloride, nitroglycerin, atropin and large doses of digitalis or alcohol do nothing but harm.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

THE SURGICAL TREATMENT OF CANCER OF THE STOMACH.—Wm. J. Mayo (*Jour. Amer. Med. Ass'n*, April 7, 1906).—The strongest appeal which has been made to the American medical profession for early surgery in this disease is embodied in the article at hand. The Mayos have a far greater experience in this line than any other surgeons in this country, and, consequently, what they say cannot be idly passed over, even by that small class of internists who consider themselves enemies of surgery on general principles. Dr. Mayo reminds us that cancer of the stomach cannot possibly get well if let alone, as an occasional appendicitis or other surgical disease may sometimes do. He says it is nothing but a crime

to treat these cases as medical at a time when there is still hope of radical intervention. Cancer of the stomach is found more frequently than it is in any other portion of the body, and we no longer have the frightful mortality attending radical operation which shocked and deterred medical men from recommending such treatment ten and twenty years ago. The mortality in experienced hands is now about 10 per cent, and in carefully selected cases it should hardly be over five. For the average case the operation known as Billroth No. 2 is the operation of choice, although there are a number of instances in which the Kocher technique, or even the Billroth No. 1, may be considered preferable. Kocher in his first seventy-five cases had six who had lived more than three years, one more than eight years, and one more than thirteen years. This alone disproves the criticism that it is impossible to cure the disease, but even those who did not remain well had an average existence of eighteen months in comfort. Much less can be said for patients who have been subjected to a palliative operation for this disease. Other authors of great experience tell of about the same results.

The Mayos have resected one hundred stomachs with fourteen deaths, having lost but one in twenty-five consecutive cases recently. They have 18 per cent well after three years, a showing which they consider exceedingly good when compared with cancer statistics for other portions of the body. The only possible way of making an early diagnosis is by exploration. Those cases are to be considered favorable in which a small tumor can be felt at the pylorus, since it is these cases which cause obstructive symptoms early enough to enable us to do something radical. A fixed growth and free fluid in the abdomen contraindicate operation.

The technique used by the Mayos is still about the same as that which is already well known by their former publications. It may be added, however, that they use the Kocher end to end union, when this is feasible, and are now doing a suture gastro-enterostomy, unless it is necessary to save time by using a Murphy button. Of their many operations for cancer of the stomach, only 26 per cent were early enough to allow a radical procedure.

SPONTANEOUS CURE OF AN ARTERIO-VENUS ANEURISM.—Lambert (*Bull. et Mem. de la Soc. de Chir.*, Tome xxxii.).—The history of this unique case is interesting enough to warrant a perusal in the original. However, a few of its details may be of value. The patient was a man, 28 years of age, who presented himself in the fall of 1904 with a traumatic arterio-venous aneurysm in the supra-clavicular region, as a result of a bullet wound. There was a swelling above the clavical, in which a thrill was very clearly manifest. It had the characteristic bruit, and there was no pulsation at the wrist on that side. Movements of the arm were possible although they were somewhat limited. One month after the patient was seen he returned to the hospital suffering from great pain in the member. The arm and hand were cyanotic, although, at this time, so much improvement was noted that no thrill or other unusual sound could be made out in the tumor. Ten days later the tumor was smaller

in size, and the tactile sense was the same on the two sides. Movement was becoming more and more free although the extremity was still cold and painful. As yet no pulse could be felt at the wrist. Two months after the patient was first seen, that is three weeks after the last note, there was no longer pain, the coldness of the extremity was decidedly lessened and nothing could be found at the side of the aneurysm. Still a month later the man was so much improved that he could recommence his work, and the only trace of the aneurysm remaining was the lack of the radial pulse. He was then pronounced perfectly well, and the seemingly impossible had been accomplished.

THE TECHNIQUE OF GASTRO-JEJUNOSTOMY.—Wm. J. Mayo (*Annals of Surgery*, April, 1906).—After years of work along this line Dr. Mayo has finally evolved an operative technique, which, he tells me in a personal communication, has been entirely satisfactory in a large number of cases. Having in mind the difficulties which attended the earlier methods, it is a relief to hear from so experienced and reliable an authority that we are no longer to expect the occasional serious accidents which formerly complicated every sort of gastro-enterostomy, in a few instances at least. He has had but one death in his last 136 operations, and the remarkable part of this is that he has done this large number in sixteen months. The Mayos have absolutely discarded all "loop" operations. In doing the Moynihan operation formerly the Mayos twisted the small intestine around its axis, as everyone else did who used this popular method, and had two cases of a regurgitation in fifty-eight operations. What they do now is to simply reverse the direction of the gut upon the posterior wall of the stomach, thus allowing it to fall back into the abdominal cavity and take its natural direction when the operation is complete. The two cuts shown in the article illustrate beautifully the point at hand, and for a correct understanding of the technique it is recommended that it be read in the original.

SO-CALLED ACUTE PANCREATITIS AND THE CAUSES OF THE FREQUENTLY FATAL END OF THE SAME. Doberauer (*Beitrage zur. Klin. Chir.*, Bd. 48, heft 2).—After reviewing histories of a large number of cases and making many experiments upon animals, the author comes to the following conclusions: This disease, when produced artificially in the dog, is very similar to that in the human, and, in consequence, we are able to state reasonably, by analogy, that the same holds good for the human as regards the cause of death in this disease, which has been experimentally proven upon the dog. Death is caused here by an acute intoxication with the chemicals which result from the breaking down of pancreas tissue in the course of this disease. We can by no means adequately explain these deaths simply by shock, or some nervous phenomenon. The author found the dogs died with all the characteristics of this disease when the pancreas was double ligated and cut in two. There was blood in the peritoneum, between the same, and fat necrosis. Still there was no peritonitis and no germs could be found. When the pancreas from such an animal was transplanted into a second dog, it produced the same disease

in this animal. However, the transposition of a normal pancreas was followed by no such symptoms. The author does not know just what chemical it is that produces death in this case, and contents himself with naming it "pancreas toxin."

ORTHOPEDIC SURGERY.

IN CHARGE OF

NATHANIEL ALLISON, M. D.

THE IMPORTANCE OF SCOLIOSIS TO THE PRACTICAL PHYSICIAN.—Bologna (*III. Cong. Dell' Ass. Nazionale dei Med.*, 1905).—The author states that physicians in general fail to recognize scoliosis in its early stages, when treatment would be of avail, and also that scoliosis exerts a pernicious influence on the action and development of the thoracic and abdominal viscera, the distortion of the chest displacing the viscera and interfering with their functions. The thoracic motions are diminished and sometimes suppressed, so that breathing is at times almost entirely diaphragmatic. The right lung becomes compressed, especially posteriorly, where it is sometimes reduced to a thin layer of connective tissue; and the left lung shows compensatory emphysema. In 90 per cent. of the cases, the heart is enlarged, with or without dilatation of its cavities. The systemic circulation also offers resistance to the flow of blood in the aorta and the large veins. The liver suffers next to the lungs, and is forced to develop in a long rather than in a transverse diameter. The kidneys also suffer, the one on the compressed side being sometimes laterally compressed between the spine and chest walls. The kidney on the side of the concavity is hypertrophied. The contraction of the psoas may close the lumen of the ureter, and cause the kidney to become hydronephrotic. A somewhat similar condition may occur in the bile-duct. Gastro-intestinal symptoms result from intestinal displacement and enteroptosis. There is a mortality of 28.9 per cent. from pulmonary tuberculosis in scoliotics. This is about double the general mortality.

For treatment the author uses the apparatus of Schulthess for measuring and giving exercises. In certain progressive cases he is satisfied with its arrest. He says: "With the exception of the absolutely initial form, I have never seen a scoliosis completely cured; there always remain signs of the primitive deviation."

ACUTE DISEASES OF THE BONE IN CHILDREN.—Rose (*Scottish Med. & Surg. Jour.*, Apr., 1906).—Acute periostitis, osteomyelitis, acute necrosis and septic arthritis are spoken of in the text-books as distinct diseases with little or no relationship to each other. In British text-books, periostitis is spoken of as the primary disease. In continental text-books, osteomyelitis is regarded as the primary condition. In none of these text-books is any explanation given why the end of the bone is always the part first affected; nor is there any explanation why on operation the medulla is

often found healthy, when osteomyelitis was regarded as the early disease. If the primary disease were either periostitis or osteomyelitis, why is not the middle of the shaft of the bone sometimes first affected; and why might the lower end of the femur or the upper end of the tibia become diseased, without the knee joint becoming involved, when the hip joint never escapes when the head of the femur is affected? The key to the proper understanding of these conditions is to be found in the anatomy and histology of the tissues adjacent to the epiphyseal cartilage. Immediately below the epiphyseal cartilage, and on the diaphyseal side of the epiphyseal cartilage, as increase in the length of the bone is mainly from that point. Now if, on account of some injury, a small blood-clot has formed in that situation, and any germs circulating in the blood find a lodgment in the blood-clot, we are able to understand the various methods by which the different pathological conditions are produced. Pus forms, and to escape follows one of several routes. It may penetrate or burrow through the epiphyseal cartilage and the epiphysis into the joint. It may burst off the head of the bone. It may pass along the surface of the cartilage, and open by a small aperture into the joint. It may burrow below the periosteum, and passing down the shaft set up periostitis, stripping off the periosteum completely.

With such a pathology there can be but one form of treatment for this disease, namely, immediate excision. No time is to be lost, for a few hours may make a difference between success and failure. If the constitutional symptoms are severe, with great denudation of periosteum, amputation should be performed at once. Ordinarily, if pus be found, a search should be made for the opening in the bone by which it has got to the surface. If found, it should be enlarged. If not found, one should be made and the bone cavity carefully washed out with some sterile or antiseptic solution. As a result of incision and evacuation of the pus, the temperature falls, the pulse becomes slower, the pain passes away. Iron, strychnia and good food will help as constitutional treatment.

AN INEXPENSIVE MECHANICAL TREATMENT FOR ANTERIOR METATARSALGIA.—Young (*Boston Med. & Surg. Jour.*, Mar. 29, 1906).—Orthopedic surgery and gynecology would seem at first glance to be almost too widely separated in their scope to have any interdependence. However, women seek the specialist in diseases of women, referring pain to the pelvis, to the lower back and hips, for which pain, pelvic examination shows no adequate cause. Very often poor muscular development and improper shoes have been discovered to be at the bottom of these symptoms, coupled with faulty methods of standing and walking, induced by attempts to gain relief. Experimenting to convince himself that these pains were often not of pelvic origin, the author has found that a simple device to relieve the discomforts due to dragging down of the transverse arch of the foot has relieved the other symptoms also. The inside sole and plate are both somewhat costly, and often necessitate the purchase of larger shoes. He has adopted a method which does away with these drawbacks, and which is found to be within the

reach of many of moderate means. This method consists of inserting a piece of sole leather with bevelled edges between the inner and outer sole of the shoe, by raising the posterior edge and afterwards nailing it in place again. This leather pad should be placed so that its pressure is exerted just behind the head of the metatarsal bones.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

PRIMARY TUMORS OF THE URINARY BLADDER.—Davis (*Ann. Surg.*, April, 1906).—The cases which form the basis of this paper are taken from the clinical records of the Massachusetts General Hospital since 1877, and the autopsy records since 1897. There are included in this series of forty-one cases only primary tumors of the bladder which have been verified by either operation or autopsy.

From this study the following conclusions are drawn:

1. Stone in the bladder is not an etiologic factor of importance in the causation of these tumors.

2. The condition of the underlying bladder-wall in regard to epithelial infiltration, is the most satisfactory and reliable guide in the determination of the benign or malignant character of papillary epithelial tumors of the bladder.

3. If the foregoing condition is accepted as the differential test of these growths then will the benign forms commonly called papillomata, be found to at least equal, if not outnumber, the malignant, the papillary carcinomata.

4. Recurrent epithelial tumors are not necessarily malignant.

5. Papillary tumors of the bladder, proved to be histologically benign, may rapidly lead to a fatal result if let alone.

6. Surgical intervention at the proper time in the case of pedunculated papillary tumors of the bladder offers a very fair chance of long immunity, if not of permanent cure.

7. The method of surgical intervention to be preferred in these cases, is excision of the tumor *in toto*, with a margin of bladder-wall at its base, including mucosa, submucosa, and muscularis in part; the section need not penetrate the entire thickness of the wall. In this way, a beginning epithelial infiltration of the base, if present, may be circumvented; or if it is not present, the knowledge of the fact is of great value in the important matters of diagnosis and prognosis. The defect in the bladder wall should be closed with sutures, which will at the same time control hemorrhage. The gravity of the operation is not appreciably increased by this procedure.

INJURIES TO THE VENA CAVA DURING NEPHRECTOMY.—Sagols (*Amer. Jour. Urol.*, April, 1906).—Hitherto experimentation has absolutely rejected ligation of the inferior vena cava. But out of seven cases recently

reported in which, during operation, the vena cava was injured and the vessel either sutured or ligated, four recovered and were cured. Thus Purpura undertook, through experimentation, to explain the discord between physiologic experimentation and clinical observation. He tried sudden ligature and slow ligature on dogs. The latter alone resulted in recovery of the animals by giving time for the supplementary circulation to become established.

In the three cases of total ligature of the vena cava reported as cured, the surgeons were dealing either with a neoplasm of the kidney or an enormous purulent pocket, which had developed in the gland itself. It was always noted that the tumor was adherent to the vena cava and it is very likely that, in all the cases, this vessel was compressed by the neoformed mass. Now in point of fact, are these not the conditions realized in the case of gradual ligature? The tumor soon commences to press on the walls of the vessel and diminishes its calibre and lumen. The presence of this gradual stenosis is an obstacle to the passage of the blood and a factor in the development of collateral circulation.

It may be said that in man, anastomoses between the portal circulation and that of the vena cava will be sufficient to assure the return of the blood to the heart after obliteration or ligature of the vena cava. In the female all observers recognize a very great influence and a marked preponderance of the uterine and ovarian venous plexuses, as well as a great importance to the utero-ovarian vein.

A very important fact from the surgical standpoint has been acquired, namely, that there are two methods of treatment of injury of the vena cava, namely suture and total ligature, which have given satisfactory results. The other procedures, namely, compression and lateral ligature, do not merit to be considered, because the inconveniences do not compensate the advantages derived by their use. Temporary clamping is not to be recommended. Total ligature is easier of execution than suture, on account of the depth of the wound. It goes without saying that ligature should not be used in all cases, although experimentally and clinically it would appear devoid of danger. The author advises total ligature in cases of wounds of the inferior vena cava when the vessel is injured below the point of entrance of the renal veins. But when the opening occurs in the vena cava at the entrance of the renal vein or above it, when the wall of the vein to be resected extends very high up, ligature appears to be absolutely contraindicated. To ligate the vena cava above and below the renal veins would be fatal, as physiology shows.

A NEW INSTRUMENT FOR THE CURE OF HYDROCELE.—Belfield (*Jour. A. M. A.*, April 7, 1906).—A special canula has been devised by the author for use in the following operation for hydrocele:

The distended scrotum is transfixed from above downward; after withdrawal of trocar and escape of fluid, the lower end of the canula is closed by the cap and the sac is distended with warm salt solution injected through the upper end. Removal of the cap allows the solution to escape; and this flushing of the sac is repeated until the escaping water shows only a trace of albumen by the nitric acid test. The cap

being replaced, an ounce or more (according to the capacity of the sac) of carbolic acid—pure or 95 per cent.—is injected, the scrotum thoroughly manipulated to secure contact throughout, and the acid allowed to escape; residual acid is neutralized by injection of alcohol; after escape of the latter the canula is withdrawn and punctures are sealed. Confinement to the house is unnecessary. The fluid which refills the sac in the next few days will be absorbed, but is better removed by a simple puncture.

This method employed in seventeen cases without recurrence, seems to offer all the good and none of the evil features of the various cutting operations for simple hydrocele.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF
HUGO EHRENFEST, M. D.

ON PARAVAGINAL SECTION: WITH SOME ILLUSTRATIVE CASES.—Sir William Sinclair (*Journal of Obst. and Gyn. of the Brit. Emp.*, April, 1906).—Attention is called to this article here because it is probably the first detailed and clear description of the rationale and technique of this operation in the English language. The operation has been repeatedly mentioned in reviews given in this department. It is today one of the few recognized operations of uterine carcinoma. Invented about ten years ago by the surgeon Schuchardt of Stettin (in Germany) paravaginal section, better known as vaginal hysterectomy with paravaginal incisions, soon was adopted by many of the leading German gynecologists. "In striking contrast with these facts," Sinclair writes, "is the reception which the operation has met with in Great Britain and America. Whether this is due to the passive resistance which we offer to the immigration of new ideas in general—our backwardness which we euphemistically designate our conservatism—or whether the subject has unaccountably been overlooked, it is impossible to say with confidence. A weighty American volume *on the 'Practice of Gynecology,' with ten thousand illustrations, published last year, is devoid of any reference to Schuchardt's operation. Holding as I do to the firm conviction that the introduction of the paravaginal operation was a distinctly beneficial addition to the resources of operative gynecology, I look forward to the satisfaction of reading the records of much good work by colleagues in the British Empire."

COLLAGOL IN CASES OF PUERPERAL SEPSIS.—Buberl (*Wiener Klin. Woch.*, 1906, No. 10).—The author gives a detailed report of results obtained with collargol in 74 cases of puerperal infection observed in Chrobak's clinic in Vienna. The silver preparation was applied in some cases in form of a salve, in others dissolved in an enema, or in intravenous

*The writer undoubtedly refers to the book of Ashton, which, however, contains only ten hundred and forty-six illustrations.—(Ed.)

injections. In almost one-half of the cases also Marmorek's anti-streptococcic serum was injected. Buberl had the impression that in some instances the effect of the collargol seemed evident; he is, however, far from believing that this preparation could in any way be considered a specific remedy in the treatment of puerperal fever.

ECTOPIC DECIDUA FORMATION.—Taussig (*Surgery, Gynecology and Obstetr.*, March, 1906).—Besides the typical formation of decidua at the place of attachment of the ovum to either uterus, tube or ovary, we also find, in a considerable percentage of all pregnancies, decidual reaction outside the point of implantation, even at a considerable distance from it, and to this the author applies the term "ectopic decidua." Such ectopic decidua has been found in the cervical mucosa, in the non-pregnant tube and in the uterus in cases of extrauterine pregnancy, in both tubes in cases of uterine pregnancy, in the peritoneum, in the ovaries, omentum, appendix, serosa of intestines, in adhesive bands and in adenomyomata of the uterus. Various theories have been advanced for the explanation of this peculiar occurrence, but none of them, as the writer conclusively shows, is entirely satisfactory. Taussig points to the fact that this ectopic decidua formation is encountered only on the surface of the organs and, therefore, he is inclined to believe that the transformation of connective tissue cells into typical decidua cells is due to the spread of an irritating substance over the surface of those organs which show the decidual reaction. He suggests as such an irritating matter cellular detritus from the placenta which could pass out through the tubes and then would be distributed over the ovaries and the pelvic peritoneum.

THE MAGNET IN THE DIAGNOSIS AND TREATMENT OF GYNECOLOGIC DISEASES.—Sellheim (*Zentralbl. f. Gyn.*, 1906, No. 11).—The writer had the original idea of using the large electro-magnet, commonly employed by ophthalmologists, for the purpose of pulling the uterine fundus up to the abdominal walls. He forces the uterus to respond to the action of the magnet by introducing into the uterine cavity a thick iron dilator. The first experiments were made in the attempt of facilitating gynecologic diagnosis by bringing the uterine fundus nearer to the external hand which is palpating through the abdominal walls. But soon the author had occasion to observe that a retroflexed uterus in this manner would spontaneously rise into an anteverted position, and the idea suggested itself to use the powerful magnet for the purpose of stretching adhesions. Sellheim believes that there is a field in gynecologic diagnosis and therapy for the electro-magnet.

HYDATIFORM AND BLOOD MOLE.—Reisch (*Monatsch. f. Geb. u. Gyn.*, April, 1906).—Since Breus, in 1892, has described a peculiar degeneration of retained abortion ova, to which he has given the name "tuberous subchorial hematoma," many investigators have been interested in the histology and etiology of these moles. Only once such a mole has been found (by Micholitzer) which seemed to combine the characteristics of a tuberous hematoma mole with those of a hydatid mole. Another case of

this peculiar and certainly extremely rare variety is described in this article by Reisch. It seems from the history that the fetus died approximately during the fourth month of pregnancy and the dead ovum was retained for about eight months. The expelled mole was of the size of a fist. At the place of its attachment to the uterus chorionic villi could be seen transformed into the characteristic small vesicles. The interior of the amniotic cavity offered the typical appearance of a tuberous hematoma mole. No trace of either fetus or umbilical cord was left. [See original article on Retention of Dead Ovum in this number.—Ed.]

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

RELAPSES IN MEASLES—Chardin (*These de Paris*, 1906) calls attention to the fact that relapses are not at all rare in measles. They may occur within a period which varies from five days to one month after the original attack, and may last as long as the original attack itself. The form of the relapse is independent of that of the original type of disease. Thus the attack may be typical and the relapse atypical or vice versa. The relapse may be hæmorrhagic, even though the original eruption was not. The prognosis is generally good.

THE RATIONAL USE OF "INFANT" FOODS.—Sutherland (*The Clinical Journal*, abstr. *British Jour. of Children's Dis.*, Apr., 1906) classifies the artificial foods on the market as (1) peptonizing powders; (2) dried milk; (3) condensed milk; (4) starchy foods, partially or wholly converted. The starchy foods, from their composition, cannot be regarded as resembling mother's milk, or suitable for infants under nine months.

The chief indications for the use of artificial foods are three; vomiting, diarrhoea and wasting.

In vomiting, predigested milk is often tolerated when fresh milk is not. Dried milk and condensed milk, without cream, are also useful in these cases at times.

In diarrhoea, predigested, dried or condensed milk, with the addition at times of starchy foods, are often of value, when it becomes necessary to stop the use of fresh milk entirely.

Marasmus. Good results are sometimes obtained in these cases with peptonized milk, the peptonizing period being reduced to the shortest practicable period as improvement sets in. The predigested foods and the wholly converted starchy foods, are often valuable as additions to the dietary in these cases.

Where fresh milk cannot be obtained, or where the milk supply has fallen under suspicion, good condensed milk is probably the best substitute for the healthy infant.

The author lays down the following general rules: In acute illness,

a return to natural feeding should be made before the case is discharged. In chronic illness, no infant food should be used longer than is absolutely necessary. Where such foods have been used for more than two weeks, orange or grape juice should be given daily to avoid the risk of scurvy. And in such cases fresh cream or cod liver oil should be given as soon as possible, because of the known deficiency of prepared foods, in fatty elements. After the age of nine months, the risks attending the use of these foods are not so great, but they have no advantage over freshly prepared milk foods, porridge, bread and milk, puddings, etc. They do not aid in the development of the gastric functions, etc., as do the natural foods.

VACCINAL IMMUNITY IN CHILDHOOD.—From a study of various statistical tables of the results of vaccination—Comby (*Arch. de Med. des Enf.*, Mar., 1906) concludes that the immunity conferred by vaccination is at times lost very quickly. The duration varies very greatly in different subjects and we have no means of estimating this duration in a given case, even approximately. In the face of such variance prudence demands universal vaccination in times of epidemics, even of children who have recently been successfully vaccinated.

When a first vaccination is negative in a child, a second, a third, a fourth inoculation should be made if necessary, for it rarely happens that one does not get a positive result finally.

Even though it be admitted that vaccination and even re-vaccination will not in every case protect absolutely against smallpox, it should not be forgotten that any resulting infection in vaccinated cases is always mild.

THE USE OF CITRATE OF SODA IN INFANT FEEDING.—Shaw (*Archives of Pediatrics*, Mar., 1906) calls attention to the value of citrate of soda in infant feeding, as originally suggested twelve years ago by Wright, and more recently advocated by Poynton and several French pediatricists. Laboratory experiments have shown that in the coagulation of milk by rennet, the addition of weak solutions of certain alkalies, while not delaying the action of the rennet, nevertheless act upon the curd, precipitating it in small fine curds instead of in a solid mass. Citrate of soda in small quantities has a marked effect in thus breaking up the curd into small particles. Shaw's laboratory experiments, which are described in detail, confirmed the observations of Wright and Poynton. The clinical trial was also most satisfactory. Twenty-two institutional babies, nearly all undersized and underweight, some suffering from chronic indigestion, some from marked malnutrition, were given the soda. In some of these cases it was used as a last resort when all other methods had failed. Five babies lost in weight, of which number, one died. In the fatal case the feeding had nothing to do with the fatal result. Sixteen babies gained markedly in weight, one was stationary. In some cases there was an initial loss of weight on beginning the treatment. The control of vomiting in the cases of chronic gastric catarrh was one of the striking effects of the citrate. Poynton had also found the citrate to be

of special value in babies suffering from dyspepsia and vomiting. The effect upon the stools was variable, but in no instance were tough casein curds found in the stools.

The food mixtures used were very simple. The milk was diluted in proportions varying from three parts of water and one of milk, to three parts of milk and one of water. The water contained cane sugar in 5 per cent. solution. The citrate of soda (in solution) was added in the proportion of 1 grain to the ounce of milk. In some cases of habitual vomiting the citrate was increased to 3 grains to the ounce. Even in this quantity it does not impart any taste to the milk. The author believes that in cases of proteid indigestion, associated with vomiting and curds in the stools, the citrate of soda given in the manner described, has a distinct therapeutic value.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

DISTURBANCES IN THE OCULAR DISTRIBUTION OF THE TRIGEMINUS ESPECIALLY THE CORNEAL REFLEX AND ITS DIAGNOSTIC VALUE.—Kempner (*Berl. klin. Woch.*, 13 and 14, 1906).—This paper is a comprehensive study of a subject upon which accurate information has always been desired. The author starts with a review of the anatomy of this region and points out that there is some uncertainty in regard to the exact distribution of the trigeminus in the supply of the eyelids and the conjunctiva. The following reflexes are considered in the study: The reflex closing of the lid, the corneo-mandibular reflex of von Solder, the reflex tear secretion and the reflex filling of the blood vessels of the bulbus. The clinical varieties in this region come under the head of irritative and paralytic forms. Especial attention is paid to the statement made by Oppenheim that a *reflexie* of the cornea is a symptom found only in tumor of the pons and medulla oblongata. The methods of examination are detailed by which these various deviations from the normal are obtained. The following material was made use of: 350 organic cases and 400 inorganic cases were examined with reference to the trigeminal region. The following results were obtained: 1. Total unilateral a *reflexie* of the cornea without sensory changes was found only twice, once in a peripheral facial paralysis and once in a case of hysteria, with sensory disturbances in nine cases, in five cases of which were tumors of the brain. 2. Total bilateral a *reflexie* of the cornea, three cases in tabes, tumor of the pons and hysteria. 3. Unilateral decrease in the corneal reflex was observed 27 times. 4. Bilateral decrease was seen in 14 organic and in 11 hysterical cases. 5. Pure sensory disturbance of the trigeminus in three cases and seven times in hysteria. The full data are thus summarized: (a) Organic reflex disturbance. 1. Generally unilateral. 2. It is usually combined with sensory disturbance,

which is limited to the trigeminus in one or several branches. 3. This, as well as the reflex disturbance, is generally progressive. (b) Functional reflex disturbance. 1. Usually bilateral. 2. The sensory disturbance is often lacking. If it is present it can not be limited to the territory supplied by the branches of the trigeminus. 3. Reflex disturbance and sensory disturbance are not progressive, but change about irrespective of any rule.

FORMS OF TABES DORSALIS WHICH ARE NOT FREQUENTLY DESCRIBED.—Lapinsky (*Deut. Zeit. f. Nervenheilkunde*, H. 3 and 4, 1906).—The author calls attention to the fact that some cases of tabes, especially in their earlier stages, show disturbances chiefly in the motor sphere and are not correctly diagnosed as tabes until long after this stage has passed. It has been more or less the custom to interpret these symptoms when they are recognized as due to the incoordination and not to a true paresis. In a case noted here by the author there was found in the preataxic stage a well marked paresis of the crossed variety in the upper and lower extremity. A number of cases are described in which the author's contention appears abundantly proven and he concludes as follows: There are cases of tabes dorsalis in which the symptoms in the earliest stages take the form of a paralysis or paresis in the motor system either in the upper or lower extremities. That these cases belong to the group of tabes dorsalis can at times be determined in the beginning by finding other evidences of tabes present, and at times the further development of the disease makes the diagnosis first possible. The motor symptoms in these cases must be reckoned in among the clinical symptoms of the disease tabes dorsalis.

HYSTERICAL FEVER.—Voss (*Deut. Zeit. f. Nervenheilkunde*, H. 3 and 4, 1906).—Two cases of hysterical fever are given in this article and the fact that hysteria was present in both cases is evident from the physical objective signs present. The author concludes as follows: 1. When the body temperature rises to hyperthermic it depends upon hysteria. 2. The fever symptoms are primary symptoms and do not depend upon the effects of increased muscular activity. 3. All appearances of vaso-motor diathesis (fever, edema, polyuria, skin affections) can be explained best upon the assumption that they are of cortical origin. 4. The diagnosis of hysteric fever can only be made when there is present no organic lesion which might account for the rise of temperature.

CRITICAL AND EXPERIMENTAL DATA ON THE TOXIN HYPOTHESIS OF EPILEPSY.—Schuckman (*Monat. f. Psych. u. Neurologie*, April, 1906).—This paper contains the results of an effort made to test the work of Ceni which appeared about four years ago. The gist of Ceni's investigations was that in epilepsy there was a specific toxin originating in the blood of epileptics to which the fit was due and further that such toxin could be recovered from the blood of epileptics and could be used to immunize against an attack in much the same way as other anti-toxins. Following this announcement there was much work done to determine the correctness of this rather novel view, for naturally it excited the interest

of physicians everywhere as offering the first definite plan for the understanding of epilepsy. Most of the work, however, failed to substantiate the results of Ceni and gradually this theory of epilepsy was regarded as unproven. In this paper the first part is devoted to a critical review of Ceni's work and the various theoretical considerations that sprung from it and then gives the results of the author's own investigations in the attempt to find out the facts. The results of his work are to entirely negative the theory which Ceni has so laboriously built up. He concludes as follows: Whatever the difference in the results that Ceni and I have obtained may be due to the fact that in no single instance was it possible to demonstrate the specific toxin of Ceni and would indicate that the beautiful theoretical system of Ceni must fall as all other theories before and after his must which will not stand the test of exact experimental methods.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

CONGENITAL FISTULA OF THE LACHRYMAL SACK.—Caillaud (*Arch. d'Ophtalm.*, March, 1906).—After reviewing the few recorded instances in literature of this very rare condition Caillaud gives the following description of the case which came to his notice: A little girl, aged eleven, whose general appearance was suggestive of myxedema, presented two symmetrical fistulas about three mm. below and to the inner side of each inner angle. Pressure on the sack (which was not dilated) did not cause a flow of tears through the tiny openings. The orifices were so small as not to admit the tip of Bowman 1. Bowman 2, introduced through the punctum on the left side, could be passed readily to the nostril, after which an injection of fluid passed freely, some drops exuding from the fistulous opening. Owing to complete absence of the puncta on the right side it became necessary to ablate the accessory lachrymal gland in order to control the epiphora on this side.

Intrauterine dacryocystitis is believed by the author to afford the best explanation of the condition.

ANTEPARTUM OPHTHALMIA.—Stephenson and Ford (*Ophthalmoscope*, April, 1906).—To the thirty-seven cases already recorded in literature, Stephenson adds a series of seventeen cases observed by him personally. Stephenson assumes that cases developing within twenty-four hours after birth should properly be regarded as instances of antepartum infection in view of the fact that the shortest known period of incubation is forty-eight hours.

"Antepartum ophthalmia" implies "an inflammatory infection of the conjunctiva produced while the fetus is still in the uterus by the infection of a micro-organism, the incubation period of which has elapsed completely or partially, before the baby comes into the world."

Conclusions: (1) Instances of antepartum ophthalmia are not so uncommon as heretofore believed.

(2) About one-half of the cases (44.5 per cent.) are satisfactorily accounted for by a premature rupture of the membranes, allowing access of micro-organisms to the baby's conjunctival sack.

(3) In the remaining cases (55.5 per cent.) a slight injury to the membranes may determine access of micro-organisms, or infection through the uninjured membranes must be assumed to have taken place.

(4) Increased temperature of the conjunctival sack *in utero*, enhanced virulence of the causative micro-organism, feebleness of the babies, slight lateral tears of the membranes, position of the fetus in the maternal passages, and the condition of the placenta, cannot be shown to be connected with the causation of antepartum ophthalmia.

(5) Several of the so-called congenital anomalies of the eyes, as corneal opacities, staphyloma, microphthalmus, cryptophthalmus and lachrymal abscess, are probably to be explained on the theory of an intrauterine infection.

SYMPATHETIC IRRITATION FOLLOWING SUBLUXATION OF THE LENS.—Roure (*Ann. d'Oculist.*, February, 1906).—Published cases of this condition are very rare. Roure reports four cases as follows:

(1). A shrunken, cataractous, subluxated lens became fixed in the pupil in such a manner that half of it was behind, half in front of the sphincter. The irritation gave rise to energetic contraction of the pupil. A sympathetic irritation was soon manifest in the other eye, subsiding at once on removal of the dislocated lens.

(2). A cataractous lens in a child became subluxated as the result of a blow. Sympathetic irritation in the fellow eye subsided on removal of the lens.

(3). A subluxated calcareous lens in an atrophic eye gave rise to sympathetic irritation. Enucleation followed by disappearance of symptoms.

(4). A subluxated cataract (Morgagnian) rubbed against the posterior surface of the iris. Sympathetic irritation. Removal of lens followed by disappearance of signs of irritation.

The sympathetic irritation is ascribed to constant friction of the lens against the iris. Prompt removal of the lens is indicated.

AN IMPROVED METHOD OF MOUNTING EYE SPECIMENS IN FORMALIN SOLUTION.—P. Smith, (*Ophth. Review*, March 1906).—The writer uses a square upright stoppered bottle, the neck of which is as wide as the body. The divided eye is placed upright against one side of the bottle and is held in position by a background of thick white drawing paper in which is cut a round or oval hole to receive the back of the half eye, the space behind the paper being packed with small bits of absorbent cotton wool to keep the whole in place. The bottle is filled up to the shoulder with the solution and is tall enough for any air remaining in it or entering subsequently to be well away from the specimen, even when the bottle is held in a sloping position. The height gives room also for a label above the specimen.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

ON CASES OF HYDROA AESTIVALE OF MILD TYPE.—Adamson (*Brit. Journal of Dermatology*, Apr., 1906).—The writer is of the opinion that these recurrent summer eruptions, whether of the type of summer prurigo or of milder types of "hydroa aestivale," or of the severe class of hydroa vacciniforme," should be placed in one group and studied together. A better understanding of the milder types would throw light upon the more severe. While it is known that the eruption itself may be caused by exposure to light, there is reason to believe that other agents also may cause it, and this is a point which requires further study. The eruptions have no resemblance to the normal reactions of the skin to strong sunlight, viz., to erythema solare, and to browning and pigmentation, and they are probably dependent upon some abnormal general condition of which we are ignorant, but which renders the tissues susceptible. The fact that hematoporphyrin was found in the urine of three, possibly four of the reported cases, may have some etiological significance, which has not, however, been worked out. The affection, in some respects, may be compared with variola or with pellagra, which are general diseases, in which the skin eruption is modified or brought about by the action of light. Certain resemblances to the eruptions of lupus erythematosus and tuberculides may be pointed out, without suggesting any close affinity between them. In erythematosus the lesions are similar in their distribution, especially upon the exposed parts, the face, the ears, the hands, and they are notably influenced by exposure to weather, and have the same tendency to leave scars. Marked features of their histology are the increased vascularity and edema of the tissue elements; they are amicrobic.

Regarding tuberculides, their distribution on the face and limbs, their resolution with scar formation are comparable to the behavior of the papular lesions in summer eruptions. Possibly many so-called winter eruptions, which have been regarded as related to summer eruptions, are actually tuberculides. The author makes these comparisons without necessarily supposing any etiological relationship between these affections, but merely as a suggestion that in summer eruptions we have possibly also to do with some form of toxemia with lesions in the skin of an inflammatory but amicrobic nature determined by local causes, in this instance notably by exposure to ultra-violet rays, but possibly by other agents also.

THE CHANGES PRODUCED BY INFLAMMATION IN THE CONJUNCTIVA.—Mayou (*Hunterian Lectures*, 1905; *Brit. Journal of Dermat.*, April, 1906).—These lectures interest those who have studied the histologic changes in skin diseases. Developmentally and structurally the conjunctiva bears close resemblance to the skin. They are both subject to similar types of eruption, the conjunctiva, however, being more sensitive reacts more easily. The plasma cell is described and the vexed problem of its

origin discussed at considerable length. The author believes that plasma-cells are derived from the perithelium and endothelium of the blood vessels and that they are possibly slightly altered mononuclear leucocytes. He considers it impossible that plasma-cells have, as stated by Unna, their origin in fixed connective-tissue cells. It is becoming more and more generally accepted that the lymphocytes themselves may originate from the endothelium of the vessel walls, which are fixed mesoblastic cells.

PITYRIASIS ROSEA.—Montgomery (*J'l of Cutaneous Dis.*, April, 1906).

—In this interesting article on pityriasis rosea the writer makes an analysis of 38 cases. On the diagnosis of the condition he makes the following remarks: In some case it is impossible to make the diagnosis between seborrhœa annulata and pityriasis. There are the same light red rings with buff wrinkled centers in both affections. Usually, however, the rapid distribution of the rosy rash is sufficient to differentiate the affections. In measles there are the severe constitutional symptoms, the catarrhal affections of the nose, throat and bronchi, the presence of the rash on the face, an unusual situation for pityriasis rosea, and the absence of the rings with the buff colored wrinkled center. In German measles, because of the slighter constitutional symptoms, the diagnosis may be more difficult, but there is the same absence of the peculiar rings. In the diagnosis between pityriasis rosea and the roseola of syphilis, the gravest errors may occur. The diagnosis is especially imminent if the patient has at the same time a venereal sore together with a fresh, rosy eruption of pityriasis rosea. The first search should be for the "primitive patch," and if that cannot be found then a careful examination should be made for small red rings with the skin in the center buff colored and wrinkled. The wrinkling otherwise unobservable in the early stages can sometimes be demonstrated by placing the thumb and finger on opposite sides of a patch, and then opening them so as to put the skin on the stretch. There is also sometimes in syphilis a red ringed eruption with a desquamating center that simulates closely a pityriasis rosea. It is a rare eruption, however, and occurs much later than the roseola of syphilis. The desquamative green soap used to be the favorite treatment and seemed to give good results. With a moistened hand green soap is rubbed into the whole skin from the jaw downwards, once or twice a day for six days. During another six days the patient simply powders the skin with some indifferent powder while waiting for the separation of the shrivelled upper epidermal layers. On the twelfth day from commencing the treatment a bath is taken for the first time, when the whole upper epidermal layers, together with their flora, are shed. A modification of this treatment is to add two per cent. of naphthol to the green soap. This mixture is rubbed in twice a day for two or three days, and not for six days, as in the former case. This treatment is disagreeable, oily, and irritating, and is not nearly so pleasant or so effective as that recommended by Allen Jamieson. For quite a long time the author has been using with satisfactory results Jamieson's treatment published by Walker in his "Introduction to Dermatology," as follows: The patient should be soaked daily for half an hour in a bath

to which two or three teaspoonfuls of Condyl's Fluid have been added, after which

Acidi Salicylici 3. to 5.

Vaseline 100.

is applied to the skin.

ON THE PATHOLOGY OF BROMIDE ERUPTIONS.—Pasini (*Annals de Derm. et Syph.*, Jan., 1906).—The author says that histologically the lesions of this eruption are always the same, whether they may be so clinically or not. The variety most frequent is the papulo-pustule in the form of acne occurring in the portions rich in vascularity and sebaceous glands. The toxic substance is the free bromine which penetrates into the circulation coming in contact with the tissues and there exercises a double action, a chemo-tactic action and the attraction of leucocytes, and a degenerative action which is exercised upon the connective tissue cells. This article is a very long one, giving in detail the histological findings and the literature pertaining to the subject.

REMARKS ON THE PREPARATION OF COLORLESS TAR ("Anthrasol").—Toff (*Monatsch. f. Prakt. Dermat.*, Tm. XL, p. 638).—This preparation contains the phenols and the hydrocarbons of tar, is of syrupy consistency, very fusible, of a yellowish color and with the characteristic odor. The principal advantages over the ordinary tar is its easy application, rapid penetration and without staining the epidermis. The itching dermatoses are favorably influenced by the alkaline solution. It can also be used in soaps and in parasitic conditions of the skin. Eczema, seborrhœa and pruritus vulvæ were treated with success. Its action is far less irritating than that of ordinary tar. The following formulas are utilized by him:

Anthrasol and Lanolin 5 gm.

Glycerine of Starch 50 gm.

Anthrasol 3 gm.

Zinc paste 50 gm.

Anthrasol

Sulphur Precipitate

Saponis Alkalinis

Glycerine aa. 10 gm.

Vaseline

Lanolin aa. 15 gm.

Anthrasol 5 gm

Talc

Oxide of Zinc aa. 100 gm.

BOOK REVIEWS.

ESSENTIALS OF THE PRACTICE OF MEDICINE. SAUNDERS' QUESTION COMPEND. W. R. Williams, M. D. W. B. Saunders & Co., Philadelphia and London, 1905.

This little compend contains in a condensed form the important points relative to those diseases with which the practitioner meets most often. At the end of each chapter is a series of questions for the benefit and instruction of the student. Saunders' question compends are well known and fill a certain need admirably.

MANUAL OF CHEMISTRY. A guide to lectures and laboratory work for beginners in chemistry; a text book specially adapted for students of medicine, pharmacy and dentistry. By W. Simon, Ph. D., M. D. Eighth Edition, thoroughly revised. With sixty-six illustrations, one colored spectra plate. Lea Brothers & Co., Philadelphia and New York. 1905.

The work is admirably adapted to the needs of the physician, being especially arranged for the student of medicine. It is divided into seven parts devoted to the following subjects: (1) Chemical Physics, (2) Principles of Chemistry, Results of the Attraction Between Atoms, (3) Non Metals and their Combinations, (4) Metals and their Combinations, (5) Analytical Chemistry, (6) Consideration of Carbon Compounds, or Organic Chemistry. The illustrations are unusually good, especially the colored plates representing the chemical reaction.

MAN AND HIS POISONS. A practical exposition of the causes, symptoms and treatment of self poisoning. By Albert Abrams, A. M., M. D. Illustrated. E. B. Treat & Co., New York.

The author maintains that man is constantly standing on the brink of a precipice and continually on the threshold of disease; that every moment man is exposed to the danger of being overpowered by poisons generated within his system. He endeavors to reduce the symptomatology and treatment of these conditions to a definite science.

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D. Lea Brothers & Co. Six dollars per annum. March 1, 1906.

This number forms the first part of the 8th volume of this well known publication. It contains the following review articles: Surgery of the Head, Neck and Thorax, by Charles H. Frazier; Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza, by Robert B. Preble; Diseases of Children, by Floyd M. Crandall; Rhinology, Laryngology, by D. Braden Kyle; Otology, by Alexander Randall.

DISEASES OF THE STOMACH AND INTESTINES. By Boardman Reed, M. D. Illustrated. E. B. Treat & Co., New York.

In presenting this work, the author gives as his reasons that no single volume in the English language treats of the whole subject of diseases of the stomach and intestines from the standpoint of our present knowledge. He has endeavored to present a not too bulky volume, containing brief but easily

intelligible descriptions of the best tests in the examination of stomach contents and feces, and the least disturbing methods of determining the position, size and mobility of the stomach, colon, etc., displacements of the abdominal viscera, together with a study of pathology, ætiology, symptom and diagnosis of gastro-intestinal diseases. All of this the author seems to have accomplished. The work is divided into four parts; the first deals with anatomic, physiologic, chemic and diagnostic data, the second with methods of examination, the third with methods of treatment, and the fourth to what he pleases to term the gastro-intestinal clinic—in other words, the special diseases of the gastro-intestinal tract.

GYNAECOLOGICAL DIAGNOSIS. A Manual for Students and Practitioners, by Arthur E. Giles, M. D., F. R. C. S. Ed., M. R. C. P. London. With 35 original illustrations. New York: William Wood & Co. 1906.

"The expert diagnostician makes the most successful practitioner in any department of medicine and surgery. Once the diagnosis is established, the question of treatment is relatively easy; if still in doubt, one can refer to a treatise, look up the condition diagnosed, and find the appropriate treatment adequately set forth." These introductory remarks of the author contain a truth which is not generally appreciated. A better instruction of the student in diagnosis more than anything else would tend to solve the proprietary medicine problem which at present disturbs the mind of so many leading physicians of this country. A practitioner who during his medical training continuously has been impressed by the practical importance of diagnosis and has been equipped with that knowledge which will enable him to make one, is not likely to treat his patients symptomatically. English physicians have the reputation of being close and keen clinical observers, and, therefore, seem predestined to write good books on the diagnosis of diseases. The volume before us undoubtedly is a good specimen of such a book. The text matter is arranged according to leading symptoms, and this is an excellent plan. The style is concise and clear, and it is due to this fact that the author was enabled to consider his subject in a most complete manner within the comparatively small space of 207 12mo. pages, an advantage quite evident in comparison with those large-sized volumes which have been published in this country and in Germany on the subject of diagnosis of gynecologic diseases.

LECTURES ON AUTO-INTOXICATION IN DISEASE OR SELF-POISONING OF THE INDIVIDUAL. By Ch. Bouchard, Professor of Pathology and Therapeutics in Paris. Translated, with a Preface and New Chapters added by Thomas Oliver, M. D., F. R. C. P. Professor of Physiology, University of Durham. Second Revised Edition. F. A. Davis Co., Philadelphia. 1906. Price, \$2.00 net.

Since Bouchard himself did not feel inclined to do so, Oliver considered it his duty to "bring up to date" and modernize the classic work of Bouchard, first published in 1887. Oliver has undertaken an impossible task. Our present views of auto-intoxications certainly are based upon those ingenious investigations made by Bouchard, but they are so radically and essentially different from what Bouchard has said twenty years ago, that it seems a hopeless undertaking to add all the new knowledge "in brackets." First of all, such a modernization would have necessitated an elimination of all that which is not any longer in accord with modern science. This Oliver has neglected to do. We read on page 4 that proof is nearly established that blenorragia is a parasitic disease. On page 7 such terms as "hereditary transmissibility of an acquired diathesis," "scrofulous diathesis" or "arthritis" are still used. We find on page 9 the sentence: Is it not among the scrofulous that you see erysipelas repeated with a truly disheartening frequency? We could add innumerable other quotations to prove that Oliver's "additions" have not brought Bouchard's book up to date. We suggest another translation of the original work, one without addenda, one which will enable the English speaking physician to admire that great genius, Bouchard.

HANDBUCH DER GEBURTSHILFE. Herausgegeben von Professor F. von Winckel in Muenchen. Zweiter Band. Erster Theil. Verlag von J. F. Bergmann in Wiesbaden.

This first half of the second volume of the most gigantic work on obstetrics ever written is a book of 650 pages.

The volume begins with a continuation of the "History of Gynecology," written by the editor, Professor Winckel. The next one hundred pages bring a most exhaustive consideration of the physiology and dietetics of the puerperium from the pen of Dr. Knapp in Prague. He divides the subject into four chapters: Physiology of the Puerperal Condition; The Processes of Involution; Therapy of the Normal Puerperium; The Diagnosis of the Puerperium: Its Medico-Legal Aspects.

L. Seitz of Muenich next takes up the question: Physiology and Dietetics of the Newborn Infant. The last 300 pages contain numerous monographs pertaining to the various aspects of "Pathology and Therapy of Pregnancy." We quote a few of these contributions: Diseases of Vulva, Vagina and Cervix During Pregnancy, by O. Schaeffer of Heidelberg. Prolapse and Pathologic Antiflexion of the Pregnant Uterus, by R. v. Braun-Fernwald. Pregnancy in the Malformed, in the Retroflected, in the Myomatous, in the Cancerous Uterus. Pregnancy in the Presence of Inflammations, of Tumors in the Uterine Appendages, in the Presence of a Tubal Pregnancy, a. s. o. by Wertheim of Vienna. H. W. Freund, Meyer-Ruegg of Zuerich and Winckel take up the complications of pregnancy with various diseases.

We trust that one of the progressive publishing houses of the United States will soon arrange for an American edition of this monumental work.

DAS RUECKFALLFIEBER. Von Primararzt Dr. Hödlmoser. Würzburger Abhandlungen aus dem Gesamtgebiet der praktischen Medizin. Würzburg. A. Stuber's Verlag (C. Kabitzsch). 1906.

The last work of the late Dr. Hödlmoser was the preparation of this excellent monograph. Stationed for some years in Sarajevo, the chief city of Bosnia and Herzegovina, where relapsing fever is rife, his personal experience with the disease was unusually great. Any one interested in relapsing fever and its spirochæte will find this monograph indispensable. The discussion of the various points still in dispute, such as the cause of the afebrile periods, is particularly excellent.

A PRACTICAL TREATISE ON SEXUAL DISORDERS OF THE MALE AND FEMALE. By Robert W. Taylor, A. M., M. D. Third Edition. Thoroughly revised, with 130 illustrations and 16 plates in colors and monochrome. Lea Brothers & Co., New York and Philadelphia.

The appearance of the third edition of this book stands as a compliment to the author for the admirable manner in which he has handled these delicate questions.

Many new sections have been added and much that the progress of the times has made necessary has been incorporated. The work has thus been much improved and extended.

GENITO-URINARY SURGERY AND VENEREAL DISEASES. By J. William White and Edward Martin. Illustrated with three hundred engravings and fourteen colored plates. Sixth Edition. J. B. Lippincott Company, Philadelphia and London.

The comprehensive scope of this work, embracing as it does genito-urinary surgery, genito-urinary diseases and syphilis, makes it most valuable for the student, the practitioner and the specialist. It is handsomely illustrated, thoroughly up to date, and has been most carefully indexed.

Special attention may be called to the conservative and sound, yet full views, of the authors. They have wasted neither word nor space in meaningless dis-

cussions or quibbles of strained points, but whatever procedure is suggested and recommended may be relied upon as tried and good. Whether one wishes to consult the work in regard to the usual practice in the most complicated surgical operation, or to find out the latest and best treatment of the simplest affection of the genito-urinary organs, he will here see all fully considered.

CLINICAL TREATISE UPON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. Professor Carl von Noorden. Translated by Florence Buchanan and I. W. Hall. Number VII. Diabetes Mellitus, Its Pathological Chemistry and Its Treatment. E. B. Treat & Co., New York, 1905.

The work of von Noorden on diabetes is too well known to need any comment. This small work of about 200 pages contains the most recent observations with reference to metabolism in diabetes mellitus and the treatment of diabetes. This little volume is in every way as satisfactory as the previous six volumes that have appeared.

THE PRACTITIONER. Special Diet Number, April, 1906. The Practitioner, Limited, 149 Strand, W. C., London.

This magazine, published monthly, has justly gained a prominent place among the medical periodicals. Each number contains, in the form of special articles, a review of subjects that are of vital interest to the physician. This number is devoted to Dietetics. There are fourteen special articles on diet in chronic heart disease, in acute illness, in renal disease; gout, rheumatism, obesity, consumption, epilepsy, diseases of the stomach and intestines, skin etc., etc., and each is written by an authority on the subject. Such work as this in medical journalism is to be highly commended.

DISEASES OF THE ANUS AND RECTUM. By D. H. Goodsall, F. R. C. S. (Eng.) and W. Ernest Miles, F. R. C. S. (Eng.). In two parts. Part II. Longmans, Green & Co., London. 1905.

Some time ago we had occasion to point out the many commendable features of this new treatise. Like in Volume I, the writers have limited themselves to set forth only those methods of treatment which they personally have found the most satisfactory. The topics discussed in this volume are the following: Prolapse and Invagination of the Rectum; Ulcerations, Strictures, Malignant Growths, Benign Tumors of Anus and Rectum, Foreign Bodies in the Rectum, Pruritus Ani, and Syphilis.

MODERN CLINICAL MEDICINE: DISEASES OF METABOLISM AND OF THE BLOOD, ANIMAL PARASITES. Translated from "Die Deutsche Klinik" by Julius L. Salinger, M. D. New York and London: D. Appleton & Co. 1906.

It was inevitable that the excellent series of monographs by German scientists and clinicians, under the title of "Die Deutsche Klinik," should be promptly translated. We have in English no adequate discussion of the constitutional diseases which treats adequately the problems connected with their etiology. These treatises, written by men who are absolutely the masters, each in his field, form today the best presentation of the subject. Among the contributors are Weintraud, v. Noorden, Naunyn, Gerhardt, W. Ebstein, Ewald, Reiss, Benda, Itis, Blumenthal, Lazarus, P. Ehrlich, Grawitz, v. Leube, Senator, Litten, Peiper, and v. Jaksch—truly a brilliant galaxy. The book should be on the shelves of every progressive physician who cannot avail himself of the original. The reader will extract much amusement from the article on blood examination by Lazarus. The editor of the series, R. C. Cabot, is himself an authority in this field and has frequently interpolated in brackets his own views, often diametrically opposed to those of the essayist. The result is sometimes rather ludicrous.